



## SA Primer – Spray Applied

Version No: 3.9

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 11/09/2024

Print Date: 02/01/2025

S.GHS.USA.EN

### SECTION 1 Identification

#### Product Identifier

|                               |                                                                          |
|-------------------------------|--------------------------------------------------------------------------|
| Product name                  | SA Primer – Spray Applied                                                |
| Synonyms                      | Not Available                                                            |
| Proper shipping name          | Chemical under pressure, flammable, n.o.s. (contains methylene chloride) |
| Other means of identification | Not Available                                                            |

#### Recommended use of the chemical and restrictions on use

|                          |                   |
|--------------------------|-------------------|
| Relevant identified uses | Primer / Adhesive |
|--------------------------|-------------------|

#### US. TSCA Regulation of Certain Chemical Substances and Mixtures Under Section 6 of the Toxic Substances Control Act

After February 3, 2025, this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers. After January 28, 2026, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of methylene chloride equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant; (2) Processing for incorporation into a formulation, mixture, or reaction product; (3) Processing for repackaging; (4) Processing for recycling; (5) Industrial or commercial use as a laboratory chemical; (6) Industrial or commercial use as a bonding agent for solvent welding; (7) Industrial and commercial use as a paint and coating remover from safety critical, corrosion-sensitive components of aircraft and spacecraft; (8) Industrial and commercial use as a processing aid; (9) Industrial and commercial use for plastic and rubber products manufacturing; (10) Industrial and commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed; (11) Industrial and commercial use in the refinishing for wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural or historic value until May 8, 2029; (12) Industrial and commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications until May 8, 2029; (13) Disposal; and (14) Export

#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

|                         |                                           |
|-------------------------|-------------------------------------------|
| Registered company name | Impermitek                                |
| Address                 | 5031 53 Ave, Mundare, AB, T0B 3H0, Canada |
| Telephone               | +1 780 289 4542 or +1 780 906 4600        |
| Fax                     | Not Available                             |
| Website                 | www.impermitek.com                        |
| Email                   | technical@impermitek.com                  |

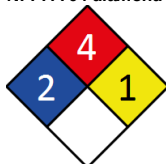
#### Emergency phone number

|                                   |                                |
|-----------------------------------|--------------------------------|
| Association / Organisation        | Canutec                        |
| Emergency telephone numbers       | 1-888-226-8832 (Canada and US) |
| Other emergency telephone numbers | 1-613-996-6666 (International) |

### SECTION 2 Hazard(s) identification

#### Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

|                |                                                                                                                                                                                                                                                                |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Classification | Aerosols, Hazard Category 1, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Carcinogenicity Category 2 |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Label elements

|                     |  |
|---------------------|--|
| Hazard pictogram(s) |  |
|---------------------|--|

SA Primer – Spray Applied

| Signal word                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Danger                                                                                                                           |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Hazard statement(s)                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
|                                                    | H222                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Extremely flammable aerosol.                                                                                                     |
|                                                    | H302                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Harmful if swallowed.                                                                                                            |
|                                                    | H315                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Causes skin irritation.                                                                                                          |
|                                                    | H319                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Causes serious eye irritation.                                                                                                   |
|                                                    | H336                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | May cause drowsiness or dizziness.                                                                                               |
|                                                    | H351                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Suspected of causing cancer.                                                                                                     |
| Hazard(s) not otherwise classified                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| Not Applicable                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| Precautionary statement(s) Prevention              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
|                                                    | P202                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Do not handle until all safety precautions have been read and understood.                                                        |
|                                                    | P210                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.                                   |
|                                                    | P211                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Do not spray on an open flame or other ignition source.                                                                          |
|                                                    | P251                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Do not pierce or burn, even after use.                                                                                           |
|                                                    | P261                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Avoid breathing vapour/ spray                                                                                                    |
|                                                    | P264                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Wash contaminated skin thoroughly after handling                                                                                 |
|                                                    | P271                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Use only outdoors or in a well-ventilated area                                                                                   |
|                                                    | P280                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Wear protective gloves/ protective clothing/ eye protection/ face protection                                                     |
| Precautionary statement(s) Response                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
|                                                    | P308+P313                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | IF exposed or concerned: Get medical advice/ attention.                                                                          |
|                                                    | P312                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Call a POISON CENTER/ doctor if you feel unwell                                                                                  |
|                                                    | P321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Specific treatment (see advice on this label).                                                                                   |
|                                                    | P305+P351+P338                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
|                                                    | P302+P352                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | IF ON SKIN: Wash with plenty of water                                                                                            |
|                                                    | P304+P340                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | IF INHALED: Remove person to fresh air and keep comfortable for breathing                                                        |
|                                                    | P362+P364                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Take off contaminated clothing and wash it before reuse                                                                          |
| Precautionary statement(s) Storage                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
|                                                    | P405                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Store locked up.                                                                                                                 |
|                                                    | P410+P412                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.                                                     |
|                                                    | P403+P233                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| Precautionary statement(s) Disposal                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
|                                                    | P501                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
| SECTION 3 Composition / information on ingredients |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| Substances                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| See section below for composition of Mixtures      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| Mixtures                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| CAS No                                             | %[weight]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Name                                                                                                                             |
| 75-09-2                                            | 30-60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <u>methylene chloride</u>                                                                                                        |
| 68476-85-7.                                        | 10-30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <u>LPG (liquefied petroleum gas)</u>                                                                                             |
| 115-10-6                                           | 5-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <u>dimethyl ether</u>                                                                                                            |
| SECTION 4 First-aid measures                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| Description of first aid measures                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |
| Eye Contact                                        | <ul style="list-style-type: none"><li>▶ If product comes in contact with eyes remove the patient from gas source or contaminated area.</li><li>▶ Take the patient to the nearest eye wash, shower or other source of clean water.</li><li>▶ Open the eyelid(s) wide to allow the material to evaporate.</li><li>▶ Gently rinse the affected eye(s) with clean, cool water for at least 15 minutes. Have the patient lie or sit down and tilt the head back. Hold the eyelid(s) open and pour water slowly over the eyeball(s) at the inner corners, letting the water run out of the outer corners.</li><li>▶ The patient may be in great pain and wish to keep the eyes closed. It is important that the material is rinsed from the eyes to prevent further damage.</li><li>▶ Ensure that the patient looks up, and side to side as the eye is rinsed in order to better reach all parts of the eye(s)</li><li>▶ Transport to hospital or doctor.</li><li>▶ Even when no pain persists and vision is good, a doctor should examine the eye as delayed damage may occur.</li><li>▶ If the patient cannot tolerate light, protect the eyes with a clean, loosely tied bandage.</li><li>▶ Ensure verbal communication and physical contact with the patient.</li></ul> <p><b>DO NOT</b> allow the patient to rub the eyes</p> <p><b>DO NOT</b> allow the patient to tightly shut the eyes</p> <p><b>DO NOT</b> introduce oil or ointment into the eye(s) without medical advice</p> <p><b>DO NOT</b> use hot or tepid water.</p> |                                                                                                                                  |
| Skin Contact                                       | If skin or hair contact occurs:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                  |

## SA Primer – Spray Applied

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|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | <ul style="list-style-type: none"> <li>▶ Immediately flush body and clothes with large amounts of water, using safety shower if available.</li> <li>▶ Quickly remove all contaminated clothing, including footwear.</li> <li>▶ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.</li> <li>▶ Transport to hospital, or doctor.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Inhalation | <ul style="list-style-type: none"> <li>▶ Following exposure to gas, remove the patient from the gas source or contaminated area.</li> <li>▶ NOTE: Personal Protective Equipment (PPE), including positive pressure self-contained breathing apparatus may be required to assure the safety of the rescuer.</li> <li>▶ Prostheses such as false teeth, which may block the airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ If the patient is not breathing spontaneously, administer rescue breathing.</li> <li>▶ If the patient does not have a pulse, administer CPR.</li> <li>▶ If medical oxygen and appropriately trained personnel are available, administer 100% oxygen.</li> <li>▶ Summon an emergency ambulance. If an ambulance is not available, contact a physician, hospital, or Poison Control Centre for further instruction.</li> <li>▶ Keep the patient warm, comfortable and at rest while awaiting medical care.</li> <li>▶ <b>MONITOR THE BREATHING AND PULSE, CONTINUOUSLY.</b></li> <li>▶ Administer rescue breathing (preferably with a demand-valve resuscitator, bag-valve mask-device, or pocket mask as trained) or CPR if necessary.</li> </ul> |
| Ingestion  | <p>Not considered a normal route of entry.</p> <ul style="list-style-type: none"> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Most important symptoms and effects, both acute and delayed

See Section 11

## Indication of any immediate medical attention and special treatment needed

for intoxication due to Freons/ Halons;

## A: Emergency and Supportive Measures

- ▶ Maintain an open airway and assist ventilation if necessary
- ▶ Treat coma and arrhythmias if they occur. Avoid (adrenaline) epinephrine or other sympathomimetic amines that may precipitate ventricular arrhythmias. Tachyarrhythmias caused by increased myocardial sensitisation may be treated with propranolol, 1-2 mg IV or esmolol 25-100 microgm/kg/min IV.
- ▶ Monitor the ECG for 4-6 hours

## B: Specific drugs and antidotes:

- ▶ There is no specific antidote

## C: Decontamination

- ▶ Inhalation; remove victim from exposure, and give supplemental oxygen if available.
- ▶ Ingestion; (a) Prehospital: Administer activated charcoal, if available. **DO NOT** induce vomiting because of rapid absorption and the risk of abrupt onset CNS depression. (b) Hospital: Administer activated charcoal, although the efficacy of charcoal is unknown. Perform gastric lavage only if the ingestion was very large and recent (less than 30 minutes)

## D: Enhanced elimination:

- ▶ There is no documented efficacy for diuresis, haemodialysis, haemoperfusion, or repeat-dose charcoal.

## POISONING and DRUG OVERDOSE, Californian Poison Control System Ed. Kent R Olson; 3rd Edition

- ▶ Do not administer sympathomimetic drugs unless absolutely necessary as material may increase myocardial irritability.
- ▶ No specific antidote.
- ▶ Because rapid absorption may occur through lungs if aspirated and cause systematic effects, the decision of whether to induce vomiting or not should be made by an attending physician.
- ▶ If lavage is performed, suggest endotracheal and/or esophageal control.
- ▶ Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.
- ▶ Treatment based on judgment of the physician in response to reactions of the patient

## For petroleum distillates

- In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.
- Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.
- Positive pressure ventilation may be necessary.
- Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.
- After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.
- Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.
- Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

## For frost-bite caused by liquefied petroleum gas:

- ▶ If part has not thawed, place in warm water bath (41-46 C) for 15-20 minutes, until the skin turns pink or red.
- ▶ Analgesia may be necessary while thawing.
- ▶ If there has been a massive exposure, the general body temperature must be depressed, and the patient must be immediately rewarmed by whole-body immersion, in a bath at the above temperature.
- ▶ Shock may occur during rewarming.
- ▶ Administer tetanus toxoid booster after hospitalization.
- ▶ Prophylactic antibiotics may be useful.
- ▶ The patient may require anticoagulants and oxygen.

[Shell Australia 22/12/87]

## For gas exposures:

## BASIC TREATMENT

- ▶ Establish a patent airway with suction where necessary.
- ▶ Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- ▶ Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- ▶ Monitor and treat, where necessary, for pulmonary oedema.
- ▶ Monitor and treat, where necessary, for shock.
- ▶ Anticipate seizures.

## ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- ▶ Positive-pressure ventilation using a bag-valve mask might be of use.
- ▶ Monitor and treat, where necessary, for arrhythmias.
- ▶ Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

Continued...

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EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994  
As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).  
For poisons (where specific treatment regime is absent):

BASIC TREATMENT

- ▶ Establish a patent airway with suction where necessary.
- ▶ Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- ▶ Administer oxygen by non-rebreather mask at 10 to 15 L/min.
- ▶ Monitor and treat, where necessary, for pulmonary oedema.
- ▶ Monitor and treat, where necessary, for shock.
- ▶ Anticipate seizures.
- ▶ **DO NOT** use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- ▶ Positive-pressure ventilation using a bag-valve mask might be of use.
- ▶ Monitor and treat, where necessary, for arrhythmias.
- ▶ Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.  
EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

SECTION 5 Fire-fighting measures

Extinguishing media

- ▶ Water spray or fog.
- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).

Special hazards arising from the substrate or mixture

|                      |                                                                                                                                          |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Incompatibility | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|

Special protective equipment and precautions for fire-fighters

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Fighting         | <p>GENERAL</p> <ul style="list-style-type: none"><li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li><li>▶ Wear full body protective clothing with breathing apparatus.</li><li>▶ Fight fire from a safe distance, with adequate cover.</li><li>▶ If safe, switch off electrical equipment until vapour fire hazard removed.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                   |
| Fire/Explosion Hazard | <ul style="list-style-type: none"><li>▶ Containers may explode when heated - Ruptured cylinders may rocket</li><li>▶ May burn but does not ignite easily.</li><li>▶ Fire exposed cylinders may vent contents through pressure relief devices thereby increasing vapour concentration..</li><li>▶ Fire may produce irritating, poisonous or corrosive gases.</li><li>▶ Runoff may create fire or explosion hazard.</li></ul> <p>Decomposition may produce toxic fumes of:<br/>carbon monoxide (CO)<br/>carbon dioxide (CO2)<br/>hydrogen chloride<br/>phosgene<br/>other pyrolysis products typical of burning organic material.</p> <p><b>Contains low boiling substance:</b> Closed containers may rupture due to pressure buildup under fire conditions.</p> |

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minor Spills | <ul style="list-style-type: none"><li>▶ Avoid breathing vapour and any contact with liquid or gas. Protective equipment including respirator should be used.</li><li>▶ <b>DO NOT enter confined spaces where gas may have accumulated.</b></li><li>▶ Increase ventilation.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Major Spills | <ul style="list-style-type: none"><li>▶ Clear area of personnel and move upwind.</li><li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li><li>▶ Wear full body protective clothing with breathing apparatus.</li><li>▶ Prevent, by all means available, spillage from entering drains or water courses.</li><li>▶ Clear area of all unprotected personnel and move upwind.</li><li>▶ Alert Emergency Authority and advise them of the location and nature of hazard.</li><li>▶ Wear full body clothing with breathing apparatus.</li><li>▶ Prevent by any means available, spillage from entering drains and water-courses.</li><li>▶ Remove leaking cylinders to a safe place.</li><li>▶ Fit vent pipes. Release pressure under safe, controlled conditions</li><li>▶ Burn issuing gas at vent pipes.</li><li>▶ DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.</li></ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling     | <p>Radon and its radioactive decay products are hazardous if inhaled or ingested</p> <ul style="list-style-type: none"><li>Containers, even those that have been emptied, may contain explosive vapours.</li><li>Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li><li>Consider use in closed pressurised systems, fitted with temperature, pressure and safety relief valves which are vented for safe dispersal.</li></ul> <p>Use only properly specified equipment which is suitable for this product, its supply pressure and temperature</p> <ul style="list-style-type: none"><li>The tubing network design connecting gas cylinders to the delivery system should include appropriate pressure indicators and vacuum or suction lines.</li><li>Fully-welded types of pressure gauges, where the bourdon tube sensing element is welded to the gauge body, are recommended.</li><li>Before connecting gas cylinders, ensure manifold is mechanically secure and does not containing another gas.<ul style="list-style-type: none"><li><b>DO NOT transfer gas from one cylinder to another.</b></li></ul></li></ul> |
| Other information | <ul style="list-style-type: none"><li>Cylinders should be stored in a purpose-built compound with good ventilation, preferably in the open.</li><li>Such compounds should be sited and built in accordance with statutory requirements.</li><li>The storage compound should be kept clear and access restricted to authorised personnel only.</li><li>Cylinders stored in the open should be protected against rust and extremes of weather.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Conditions for safe storage, including any incompatibilities

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable container      | <ul style="list-style-type: none"><li><b>DO NOT use aluminium or galvanised containers</b></li><li>Cylinder:<ul style="list-style-type: none"><li>Ensure the use of equipment rated for cylinder pressure.</li><li>Ensure the use of compatible materials of construction.</li><li>Valve protection cap to be in place until cylinder is secured, connected.</li><li>Cylinder must be properly secured either in use or in storage.</li></ul></li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Storage incompatibility | <p>Dimethyl ether:</p> <ul style="list-style-type: none"><li>is a peroxidisable gas</li><li>may be heat and shock sensitive</li><li>is able to form unstable peroxides on prolonged exposure to air</li><li>reacts violently with oxidisers, aluminium hydride, lithium aluminium hydride</li><li>is incompatible with strong acids, metal salts</li></ul> <p>Methylene chloride</p> <ul style="list-style-type: none"><li>is a combustible liquid under certain circumstances even though there is no measurable flash point and it is difficult to ignite</li><li>its is flammable in ambient air in the range 12-23%; increased oxygen content can greatly enhance fire and explosion potential</li><li>contact with hot surfaces and elevated temperatures can form fumes of hydrogen chloride and phosgene</li><li>reacts violently with active metals, aluminium, lithium, methanol, peroxydisulfuryl difluoride, potassium, potassium tert-butoxide, sodium</li><li>forms explosive mixtures with nitric acid</li><li>is incompatible with strong oxidisers, strong caustics, alkaline earths and alkali metals</li><li>attacks some plastics, coatings and rubber</li><li>may generate electrostatic charge due to low conductivity</li></ul> <p>Low molecular weight alkanes are a type of chemical compounds that can be found in gases or liquids. These alkanes:</p> <ul style="list-style-type: none"><li>Can cause a dangerous reaction with strong oxidizers, chlorine, chlorine dioxide, and dioxygenyl tetrafluoroborate when there is oxygen and heat present.</li><li>Are incompatible with halogens.</li><li>Can create static charges due to their low conductivity, leading to an accumulation of static charge.</li></ul> <p>Propane:</p> <ul style="list-style-type: none"><li>reacts violently with strong oxidisers, barium peroxide, chlorine dioxide, dichlorine oxide, fluorine etc.</li><li>Dissolves some plastics, rubbers, and coatings</li><li>may accumulate static charges which may ignite its vapours</li><li>Segregate from alcohol, water.</li><li>Avoid reaction with oxidising agents</li><li>Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances</li></ul> |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

| Source                                               | Ingredient                    | Material name                    | TWA                   | STEL          | Peak          | Notes              |
|------------------------------------------------------|-------------------------------|----------------------------------|-----------------------|---------------|---------------|--------------------|
| US NIOSH Recommended Exposure Limits (RELs)          | methylene chloride            | Methylene chloride               | Not Available         | Not Available | Not Available | Ca; See Appendix A |
| US OSHA Permissible Exposure Limits (PELs) Table Z-1 | LPG (liquefied petroleum gas) | L.P.G. (Liquified petroleum gas) | 1000 ppm / 1800 mg/m3 | Not Available | Not Available | Not Available      |
| US NIOSH Recommended Exposure Limits (RELs)          | LPG (liquefied petroleum gas) | L.P.G.                           | 1000 ppm / 1800 mg/m3 | Not Available | Not Available | Not Available      |

Emergency Limits

| Ingredient                    | TEEL-1        | TEEL-2        | TEEL-3        |
|-------------------------------|---------------|---------------|---------------|
| methylene chloride            | Not Available | Not Available | Not Available |
| LPG (liquefied petroleum gas) | 65,000 ppm    | 2.30E+05 ppm  | 4.00E+05 ppm  |
| dimethyl ether                | 3,000 ppm     | 3800* ppm     | 7200* ppm     |

| Ingredient                    | Original IDLH | Revised IDLH  |
|-------------------------------|---------------|---------------|
| methylene chloride            | 2,300 ppm     | Not Available |
| LPG (liquefied petroleum gas) | Not Available | Not Available |
| dimethyl ether                | Not Available | Not Available |

## SA Primer – Spray Applied

## Exposure controls

|                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Appropriate engineering controls</b>                                      | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Individual protection measures, such as personal protective equipment</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Eye and face protection</b>                                               | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Skin protection</b>                                                       | See Hand protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Hands/feet protection</b>                                                 | <ul style="list-style-type: none"> <li>▶ When handling sealed and suitably insulated cylinders wear cloth or leather gloves.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Body protection</b>                                                       | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Other protection</b>                                                      | <ul style="list-style-type: none"> <li>▶ Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent]</li> <li>▶ Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent]</li> <li>▶ Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.</li> <li>▶ Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood.</li> <li>▶ Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> <li>▶ Protective overalls, closely fitted at neck and wrist.</li> <li>▶ Eye-wash unit.</li> <li>▶ Ensure availability of lifeline in confined spaces.</li> <li>▶ Staff should be trained in all aspects of rescue work.</li> </ul> |

## Respiratory protection

Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used
- ▶ Positive pressure, full face, air-supplied breathing apparatus should be used for work in enclosed spaces if a leak is suspected or the primary containment is to be opened (e.g. for a cylinder change)
- ▶ Air-supplied breathing apparatus is required where release of gas from primary containment is either suspected or demonstrated.

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Required minimum protection factor | Maximum gas/vapour concentration present in air p.p.m. (by volume) | Half-face Respirator | Full-Face Respirator |
|------------------------------------|--------------------------------------------------------------------|----------------------|----------------------|
| up to 10                           | 1000                                                               | AX-AUS / Class 1     | -                    |
| up to 50                           | 1000                                                               | -                    | AX-AUS / Class 1     |
| up to 50                           | 5000                                                               | Airline *            | -                    |
| up to 100                          | 5000                                                               | -                    | AX-2                 |
| up to 100                          | 10000                                                              | -                    | AX-3                 |
| 100+                               |                                                                    | -                    | Airline**            |

\*\* - Continuous-flow or positive pressure demand.

A(All classes) = Organic vapours, B AUS or B1 = Acid gases, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 deg C)

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

|                                            |                          |                                                |                  |
|--------------------------------------------|--------------------------|------------------------------------------------|------------------|
| <b>Appearance</b>                          | Black. Aerosol           |                                                |                  |
| <b>Physical state</b>                      | Dissolved Gas            | <b>Relative density (Water = 1)</b>            | 1.15-1.2         |
| <b>Odour</b>                               | Chlorinated hydrocarbons | <b>Partition coefficient n-octanol / water</b> | Not Available    |
| <b>Odour threshold</b>                     | Not Available            | <b>Auto-ignition temperature (°C)</b>          | Not Available    |
| <b>pH (as supplied)</b>                    | Not Available            | <b>Decomposition temperature (°C)</b>          | Not Available    |
| <b>Melting point / freezing point (°C)</b> | Not Available            | <b>Viscosity (cSt)</b>                         | 750.000-1250.000 |

Continued...

## SA Primer – Spray Applied

|                                                |               |                                                     |               |
|------------------------------------------------|---------------|-----------------------------------------------------|---------------|
| Initial boiling point and boiling range (°C)   | 40            | Molecular weight (g/mol)                            | Not Available |
| Flash point (°C)                               | Not Available | Taste                                               | Not Available |
| Evaporation rate                               | 27.5 BuAC = 1 | Explosive properties                                | Not Available |
| Flammability                                   | Not Available | Oxidising properties                                | Not Available |
| Upper Explosive Limit (%)                      | Not Available | Surface Tension (dyn/cm or mN/m)                    | Not Available |
| Lower Explosive Limit (%)                      | Not Available | Volatile Component (%vol)                           | Not Available |
| Vapour pressure (kPa)                          | Not Available | Gas group                                           | Not Available |
| Solubility in water                            | Immiscible    | pH as a solution (1%)                               | Not Available |
| Vapour density (Air = 1)                       | Not Available | VOC g/L                                             | Not Available |
| Heat of Combustion (kJ/g)                      | Not Available | Ignition Distance (cm)                              | Not Available |
| Flame Height (cm)                              | Not Available | Flame Duration (s)                                  | Not Available |
| Enclosed Space Ignition Time Equivalent (s/m3) | Not Available | Enclosed Space Ignition Deflagration Density (g/m3) | Not Available |
| Nanoform Solubility                            | Not Available | Nanoform Particle Characteristics                   | Not Available |
| Particle Size                                  | Not Available |                                                     |               |

## SECTION 10 Stability and reactivity

|                                    |                                                                                                                                                                                                      |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | See section 7                                                                                                                                                                                        |
| Chemical stability                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| Possibility of hazardous reactions | See section 7                                                                                                                                                                                        |
| Conditions to avoid                | See section 7                                                                                                                                                                                        |
| Incompatible materials             | See section 7                                                                                                                                                                                        |
| Hazardous decomposition products   | See section 5                                                                                                                                                                                        |

## SECTION 11 Toxicological information

## Information on toxicological effects

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhaled      | <p>The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.</p> <p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>Inhalation of the vapour is hazardous and may even be fatal</p> <p>The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.</p> <p>Inhalation of toxic gases may cause:</p> <ul style="list-style-type: none"> <li>▶ Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures;</li> <li>▶ respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest;</li> <li>▶ heart: collapse, irregular heartbeats and cardiac arrest;</li> <li>▶ gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain.</li> </ul> <p>Inhalation hazard is increased at higher temperatures.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p>Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.</p> <p>Inhalation exposure may cause susceptible individuals to show change in heart beat rhythm i.e. cardiac arrhythmia. Exposures must be terminated.</p> <p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> |
| Ingestion    | <p>Not normally a hazard due to physical form of product.</p> <p>Considered an unlikely route of entry in commercial/industrial environments</p> <p>Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Skin Contact | <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p> <p>The material may cause severe inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Eye          | <p>Not considered to be a risk because of the extreme volatility of the gas.</p> <p>There is some evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Chronic      | <p>Strong evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure.</p> <p>There is sufficient evidence to suggest that this material directly causes cancer in humans.</p> <p>Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.</p> <p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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SA Primer – Spray Applied

|                               |                                                                                                                                                                                                                                                                                                                                                |                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
|                               | Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Main route of exposure to the gas in the workplace is by inhalation. |                                                                  |
| Spray Applied SA Primer       | TOXICITY                                                                                                                                                                                                                                                                                                                                       | IRRITATION                                                       |
|                               | Not Available                                                                                                                                                                                                                                                                                                                                  | Not Available                                                    |
| methylene chloride            | TOXICITY                                                                                                                                                                                                                                                                                                                                       | IRRITATION                                                       |
|                               | dermal (rat) LD50: >2000 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                  | Eye (Rodent - rabbit): 10mg - Mild                               |
|                               | Inhalation (Rat) LC50: 76 mg/L4h <sup>[2]</sup>                                                                                                                                                                                                                                                                                                | Eye (Rodent - rabbit): 162mg - Moderate                          |
|                               | Oral (Rat) LD50: 1600 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                     | Eye (Rodent - rabbit): 500mg/24H - Mild                          |
|                               |                                                                                                                                                                                                                                                                                                                                                | Eye: adverse effect observed (irritating) <sup>[1]</sup>         |
|                               |                                                                                                                                                                                                                                                                                                                                                | Skin (Rodent - rabbit): 100mg/24H - Moderate                     |
|                               |                                                                                                                                                                                                                                                                                                                                                | Skin (Rodent - rabbit): 810mg/24H - Severe                       |
| LPG (liquefied petroleum gas) | TOXICITY                                                                                                                                                                                                                                                                                                                                       | IRRITATION                                                       |
|                               | Inhalation (Rat) LC50: 658 mg/4h <sup>[2]</sup>                                                                                                                                                                                                                                                                                                | Not Available                                                    |
| dimethyl ether                | TOXICITY                                                                                                                                                                                                                                                                                                                                       | IRRITATION                                                       |
|                               | Inhalation (Rat) LC50: >20000 ppm4h <sup>[1]</sup>                                                                                                                                                                                                                                                                                             | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| Legend:                       | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances                                                                                                                    |                                                                  |

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |   |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|
| Spray Applied SA Primer                      | Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation.                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |   |
| METHYLENE CHLORIDE                           | Inhalation (human) TCLo: 500 ppm/ 1 y - I Eye(rabbit): 10 mg - mild<br>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.<br>The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.<br><br><b>WARNING:</b> This substance has been classified by the IARC as Group 2A: Probably Carcinogenic to Humans. |                          |   |
| LPG (LIQUEFIED PETROLEUM GAS)                | No significant acute toxicological data identified in literature search. inhalation of the gas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |   |
| Spray Applied SA Primer & METHYLENE CHLORIDE |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |   |
| Acute Toxicity                               | ✓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Carcinogenicity          | ✓ |
| Skin Irritation/Corrosion                    | ✓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reproductivity           | ✗ |
| Serious Eye Damage/Irritation                | ✓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | STOT - Single Exposure   | ✓ |
| Respiratory or Skin sensitisation            | ✗                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | STOT - Repeated Exposure | ✗ |
| Mutagenicity                                 | ✗                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Aspiration Hazard        | ✗ |

Legend: ✗ – Data either not available or does not fill the criteria for classification  
✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

|                               |               |                    |                               |               |               |
|-------------------------------|---------------|--------------------|-------------------------------|---------------|---------------|
| Spray Applied SA Primer       | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                               | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| methylene chloride            | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                               | BCF           | 1008h              | Fish                          | 2-5.4         | 7             |
|                               | EC50          | 72h                | Algae or other aquatic plants | 202-286mg/l   | 4             |
|                               | EC50          | 96h                | Algae or other aquatic plants | 0.98mg/l      | 4             |
|                               | NOEC(ECx)     | 24h                | Algae or other aquatic plants | 0.98mg/l      | 4             |
|                               | EC50          | 48h                | Crustacea                     | 108.5mg/l     | 1             |
|                               | LC50          | 96h                | Fish                          | 2-3.3mg/l     | 4             |
| LPG (liquefied petroleum gas) | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                               | Not Available | Not Available      | Not Available                 | Not Available | Not Available |

SA Primer – Spray Applied

| dimethyl ether                                                                                                                                                                                                                                                                                                                                 | Endpoint  | Test Duration (hr) | Species                       | Value       | Source |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|-------------------------------|-------------|--------|
|                                                                                                                                                                                                                                                                                                                                                | EC50      | 96h                | Algae or other aquatic plants | 154.917mg/l | 2      |
|                                                                                                                                                                                                                                                                                                                                                | NOEC(ECx) | 48h                | Crustacea                     | >4000mg/l   | 1      |
|                                                                                                                                                                                                                                                                                                                                                | EC50      | 48h                | Crustacea                     | >4400mg/L   | 2      |
|                                                                                                                                                                                                                                                                                                                                                | LC50      | 96h                | Fish                          | 1783.04mg/l | 2      |
| <b>Legend:</b> <i>Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data</i> |           |                    |                               |             |        |

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For petroleum distillates:

Environmental fate:

When petroleum substances are released into the environment, four major fate processes will take place: dissolution in water, volatilization, biodegradation and adsorption. These processes will cause changes in the composition of these UVCB substances. In the case of spills on land or water surfaces, photodegradation-another fate process-can also be significant.

As noted previously, the solubility and vapour pressure of components within a mixture will differ from those of the component alone.

For Methylene Chloride: Log Kow: 1.25; Log Koc: 1.68; Log Kom: 1.44; Henry's atm m3 /mol: 2.68E-03; Henry s Law Constant: 0.002 atm/m3/mol; BCF: 5.

Atmospheric Fate: Methylene chloride is a volatile liquid that tends to evaporate to the atmosphere from water and soil. The main degradation pathway for methylene chloride in air is via reactions with hydroxyl radicals the average atmospheric lifetime is estimated to be 130 days. Because this degradation pathway is relatively slow, methylene chloride may become widely dispersed but, is not likely to accumulate in the atmosphere.

For Propane: Koc 460. log Kow 2.36.

Henry's Law constant of 7.07x10-1 atm-cu m/mole, derived from its vapour pressure, 7150 mm Hg, and water solubility, 62.4 mg/L. Estimated BCF: 13.1.

**DO NOT discharge into sewer or waterways.**

Persistence and degradability

| Ingredient         | Persistence: Water/Soil   | Persistence: Air            |
|--------------------|---------------------------|-----------------------------|
| methylene chloride | LOW (Half-life = 56 days) | HIGH (Half-life = 191 days) |
| dimethyl ether     | LOW                       | LOW                         |

Bioaccumulative potential

| Ingredient                    | Bioaccumulation     |
|-------------------------------|---------------------|
| methylene chloride            | LOW (BCF = 40)      |
| LPG (liquefied petroleum gas) | LOW (LogKOW = 3.39) |
| dimethyl ether                | LOW (LogKOW = 0.1)  |

Mobility in soil

| Ingredient         | Mobility               |
|--------------------|------------------------|
| methylene chloride | LOW (Log KOC = 23.74)  |
| dimethyl ether     | HIGH (Log KOC = 1.292) |

Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

Waste treatment methods

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product / Packaging disposal | <ul style="list-style-type: none"><li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li><li>▶ It may be necessary to collect all wash water for treatment before disposal.</li><li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li><li>▶ Where in doubt contact the responsible authority.</li><li>▶ Evaporate residue at an approved site.</li><li>▶ Return empty containers to supplier. If containers are marked non-returnable establish means of disposal with manufacturer prior to purchase.</li><li>▶ Ensure damaged or non-returnable cylinders are gas-free before disposal.</li></ul> |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

SECTION 14 Transport information

Labels Required

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
|                  |  |
| Marine Pollutant | NO                                                                                  |

Shipping container, transport vehicle placarding, and labeling may vary from the below information. This depends on the quantity shipped, the applicability of excepted quantity requirements, limited quantity requirements, and/or special provisions according to US DOT, IATA and IMDG regulations. In case of reshipment, it is the responsibility of the shipper to determine the appropriate labels and markings in accordance with applicable transport regulations.

Land transport (DOT)

SA Primer – Spray Applied

|                                    |                                                                                                                            |                |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------|
| 14.1. UN number or ID number       | 3501                                                                                                                       |                |
| 14.2. UN proper shipping name      | CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (contains LPG (liquefied petroleum gas), dimethyl ether and methylene chloride) |                |
| 14.3. Transport hazard class(es)   | Class                                                                                                                      | 2.1            |
|                                    | Subsidiary Hazard                                                                                                          | Not Applicable |
| 14.4. Packing group                | Not Applicable                                                                                                             |                |
| 14.5. Environmental hazard         | Not Applicable                                                                                                             |                |
| 14.6. Special precautions for user | Hazard Label                                                                                                               | 2.1            |
|                                    | Special provisions                                                                                                         | 362, T50, TP40 |

Air transport (ICAO-IATA / DGR)

|                                    |                                                                                                                              |                |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------|
| 14.1. UN number                    | 3501                                                                                                                         |                |
| 14.2. UN proper shipping name      | Chemical under pressure, flammable, n.o.s. * (contains LPG (liquefied petroleum gas), dimethyl ether and methylene chloride) |                |
| 14.3. Transport hazard class(es)   | ICAO/IATA Class                                                                                                              | 2.1            |
|                                    | ICAO / IATA Subsidiary Hazard                                                                                                | Not Applicable |
|                                    | ERG Code                                                                                                                     | 10L            |
| 14.4. Packing group                | Not Applicable                                                                                                               |                |
| 14.5. Environmental hazard         | Not Applicable                                                                                                               |                |
| 14.6. Special precautions for user | Special provisions                                                                                                           | A1 A187        |
|                                    | Cargo Only Packing Instructions                                                                                              | 218            |
|                                    | Cargo Only Maximum Qty / Pack                                                                                                | 75 kg          |
|                                    | Passenger and Cargo Packing Instructions                                                                                     | Forbidden      |
|                                    | Passenger and Cargo Maximum Qty / Pack                                                                                       | Forbidden      |
|                                    | Passenger and Cargo Limited Quantity Packing Instructions                                                                    | Forbidden      |
|                                    | Passenger and Cargo Limited Maximum Qty / Pack                                                                               | Forbidden      |

Sea transport (IMDG-Code / GGVSee)

|                                    |                                                                                                                            |                |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------|
| 14.1. UN number                    | 3501                                                                                                                       |                |
| 14.2. UN proper shipping name      | CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (contains LPG (liquefied petroleum gas), dimethyl ether and methylene chloride) |                |
| 14.3. Transport hazard class(es)   | IMDG Class                                                                                                                 | 2.1            |
|                                    | IMDG Subsidiary Hazard                                                                                                     | Not Applicable |
| 14.4. Packing group                | Not Applicable                                                                                                             |                |
| 14.5. Environmental hazard         | Not Applicable                                                                                                             |                |
| 14.6. Special precautions for user | EMS Number                                                                                                                 | F-D , S-U      |
|                                    | Special provisions                                                                                                         | 274 362        |
|                                    | Limited Quantities                                                                                                         | 0              |

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name                  | Group         |
|-------------------------------|---------------|
| methylene chloride            | Not Available |
| LPG (liquefied petroleum gas) | Not Available |
| dimethyl ether                | Not Available |

14.7.3. Transport in bulk in accordance with the IGC Code

| Product name                  | Ship Type     |
|-------------------------------|---------------|
| methylene chloride            | Not Available |
| LPG (liquefied petroleum gas) | Not Available |
| dimethyl ether                | Not Available |

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

methylene chloride is found on the following regulatory lists

- Chemical Footprint Project - Chemicals of High Concern List
- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

Continued...

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2A: Probably carcinogenic to humans

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants

US - California Proposition 65 - Carcinogens

US - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US - California Substances Identified As Toxic Air Contaminants

US - Massachusetts - Right To Know Listed Chemicals

US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens

US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Mutagens

US - New Jersey Right to Know Hazardous Substances

US - Pennsylvania - Hazardous Substance List

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US Clean Air Act - Hazardous Air Pollutants

US CWA (Clean Water Act) - Priority Pollutants

US CWA (Clean Water Act) - Toxic Pollutants

US DOE Temporary Emergency Exposure Limits (TEELs)

US EPA Carcinogens Listing

US EPA Integrated Risk Information System (IRIS)

US EPA IRIS Carcinogens

US EPCRA Section 313 Chemical List

US National Toxicology Program (NTP) 15th Report Part B. Reasonably Anticipated to be a Human Carcinogen

US New York City Community Right-to-Know: List of Hazardous Substances

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Carcinogens Listing

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Section 12(b) - List of Chemical Substances Subject to Export Notification Requirements

LPG (liquefied petroleum gas) is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

US - Massachusetts - Right To Know Listed Chemicals

US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Flammables

US - New Jersey Right to Know Hazardous Substances

US - Pennsylvania - Hazardous Substance List

US DOE Temporary Emergency Exposure Limits (TEELs)

US New York City Community Right-to-Know: List of Hazardous Substances

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

dimethyl ether is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals

US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Flammables

US - New Jersey Right to Know Hazardous Substances

US - Pennsylvania - Hazardous Substance List

US AIHA Workplace Environmental Exposure Levels (WEELs)

US Department of Homeland Security (DHS) - Chemical Facility Anti-Terrorism Standards (CFATS) - Chemicals of Interest

US DOE Temporary Emergency Exposure Limits (TEELs)

US New York City Community Right-to-Know: List of Hazardous Substances

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US Toxicology Excellence for Risk Assessment (TERA) Workplace Environmental Exposure Levels (WEEL)

Additional Regulatory Information

Not Applicable

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories

|                                                 |     |
|-------------------------------------------------|-----|
| Flammable (Gases, Aerosols, Liquids, or Solids) | Yes |
| Gas under pressure                              | No  |
| Explosive                                       | No  |
| Self-heating                                    | No  |
| Pyrophoric (Liquid or Solid)                    | No  |
| Pyrophoric Gas                                  | No  |
| Corrosive to metal                              | No  |
| Oxidizer (Liquid, Solid or Gas)                 | No  |
| Organic Peroxide                                | No  |
| Self-reactive                                   | No  |
| In contact with water emits flammable gas       | No  |
| Combustible Dust                                | No  |
| Carcinogenicity                                 | Yes |
| Acute toxicity (any route of exposure)          | Yes |
| Reproductive toxicity                           | No  |
| Skin Corrosion or Irritation                    | Yes |
| Respiratory or Skin Sensitization               | No  |
| Serious eye damage or eye irritation            | Yes |

|                                                              |     |
|--------------------------------------------------------------|-----|
| Specific target organ toxicity (single or repeated exposure) | Yes |
| Aspiration Hazard                                            | No  |
| Germ cell mutagenicity                                       | No  |
| Simple Asphyxiant                                            | No  |
| Hazards Not Otherwise Classified                             | No  |

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

| Name               | Reportable Quantity in Pounds (lb) | Reportable Quantity in kg |
|--------------------|------------------------------------|---------------------------|
| methylene chloride | 1000                               | 454                       |

US. EPCRA Section 313 Toxic Release Inventory (TRI) (40 CFR 372)

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know-Act of 1986 (40 CFR 372):

| CAS No  | %[weight] | Name               |
|---------|-----------|--------------------|
| 75-09-2 | 30-60     | methylene chloride |

*This information must be included in all SDSs that are copied and distributed for this material.*

US. TSCA Regulation of Certain Chemical Substances and Mixtures Under Section 6 of the Toxic Substances Control Act

After February 3, 2025, this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers. After January 28, 2026, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of methylene chloride equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant; (2) Processing for incorporation into a formulation, mixture, or reaction product; (3) Processing for repackaging; (4) Processing for recycling; (5) Industrial or commercial use as a laboratory chemical; (6) Industrial or commercial use as a bonding agent for solvent welding; (7) Industrial and commercial use as a paint and coating remover from safety critical, corrosion-sensitive components of aircraft and spacecraft; (8) Industrial and commercial use as a processing aid; (9) Industrial and commercial use for plastic and rubber products manufacturing; (10) Industrial and commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed; (11) Industrial and commercial use in the refinishing for wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural or historic value until May 8, 2029; (12) Industrial and commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications until May 8, 2029; (13) Disposal; and (14) Export

Additional Federal Regulatory Information

Not Applicable

State Regulations

US. California Proposition 65

 **WARNING:** This product can expose you to chemicals including **methylene chloride**, which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Additional State Regulatory Information

Not Applicable

National Inventory Status

| National Inventory                              | Status                                                                                                                                                                                                    |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIC / Australia Non-Industrial Use | Yes                                                                                                                                                                                                       |
| Canada - DSL                                    | Yes                                                                                                                                                                                                       |
| Canada - NDSL                                   | No (methylene chloride; LPG (liquefied petroleum gas); dimethyl ether)                                                                                                                                    |
| China - IECSC                                   | Yes                                                                                                                                                                                                       |
| Europe - EINEC / ELINCS / NLP                   | Yes                                                                                                                                                                                                       |
| Japan - ENCS                                    | Yes                                                                                                                                                                                                       |
| Korea - KECI                                    | Yes                                                                                                                                                                                                       |
| New Zealand - NZIoC                             | Yes                                                                                                                                                                                                       |
| Philippines - PICCS                             | Yes                                                                                                                                                                                                       |
| USA - TSCA                                      | All chemical substances in this product have been designated as TSCA Inventory 'Active'                                                                                                                   |
| Taiwan - TCSI                                   | Yes                                                                                                                                                                                                       |
| Mexico - INSQ                                   | Yes                                                                                                                                                                                                       |
| Vietnam - NCI                                   | Yes                                                                                                                                                                                                       |
| Russia - FBEPH                                  | Yes                                                                                                                                                                                                       |
| <b>Legend:</b>                                  | <i>Yes = All CAS declared ingredients are on the inventory<br/>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</i> |

SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 11/09/2024 |
| Initial Date  | 13/06/2023 |

SDS Version Summary

| Version | Date of Update | Sections Updated                                                                                                                                                                                         |
|---------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.9     | 11/09/2024     | Hazards identification - Classification, Composition / information on ingredients - Ingredients, Identification of the substance / mixture and of the company / undertaking - Supplier Information, Name |

Other information

## SA Primer – Spray Applied

**Definitions and abbreviations**

- ▶ PC - TWA: Permissible Concentration-Time Weighted Average
- ▶ PC - STEL: Permissible Concentration-Short Term Exposure Limit
- ▶ IARC: International Agency for Research on Cancer
- ▶ ACGIH: American Conference of Governmental Industrial Hygienists
- ▶ STEL: Short Term Exposure Limit
- ▶ TEEL: Temporary Emergency Exposure Limit,
- ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
- ▶ ES: Exposure Standard
- ▶ OSF: Odour Safety Factor
- ▶ NOAEL: No Observed Adverse Effect Level
- ▶ LOAEL: Lowest Observed Adverse Effect Level
- ▶ TLV: Threshold Limit Value
- ▶ LOD: Limit Of Detection
- ▶ OTV: Odour Threshold Value
- ▶ BCF: BioConcentration Factors
- ▶ BEI: Biological Exposure Index
- ▶ DNEL: Derived No-Effect Level
- ▶ PNEC: Predicted no-effect concentration
- ▶ MARPOL: International Convention for the Prevention of Pollution from Ships
- ▶ IMSBC: International Maritime Solid Bulk Cargoes Code
- ▶ IGC: International Gas Carrier Code
- ▶ IBC: International Bulk Chemical Code
  
- ▶ AIIC: Australian Inventory of Industrial Chemicals
- ▶ DSL: Domestic Substances List
- ▶ NDSDL: Non-Domestic Substances List
- ▶ IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances
- ▶ ELINCS: European List of Notified Chemical Substances
- ▶ NLP: No-Longer Polymers
- ▶ ENCS: Existing and New Chemical Substances Inventory
- ▶ KECI: Korea Existing Chemicals Inventory
- ▶ NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ▶ TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

The information contained in the Safety Data Sheet is based on our data available on the date of publication. This information is intended to aid the user in controlling the handling risks. It is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications. The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the intended use of the product. In case of any unclarity we advise consulting the supplier or an expert.