## Safety Data Sheet 10-8570 401 PREMIUM FIBRATED ALUMINUM ROOF COATING

Safety Data Sheet dated: 01/23/2023 - version 3 Date of first edition: 12/17/2021



### **Product identifier**

Mixture identification:

Trade name: 401 PREMIUM FIBRATED ALUMINUM ROOF COATING Trade code: PLY0091

## Recommended use of the chemical and restrictions on use

Recommended use: Coating

Restrictions on use: Not available

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

### Company: MULE HIDE PRODUCTS CO. INC.

1195 PRINCE HALL DRIVE, BELOIT, WI, 53511. USA Phone: 800-786-1492

## Responsable: www.mulehide.com

#### **Emergency 24 hour numbers:**

Emergency Number (USA/Canada) CHEMTREC 1(800) 424-9300 / 1(703) 527-3887 Emergency Transport CANUTEC (Canada) 1-613-996-6666

## 2. HAZARD(S) IDENTIFICATION



### Classification of the chemical

| Flammable Liquids — Category 3   | Flammable liquid and vapour.  |
|--|---|
| Germ cell mutagenicity, Category 1B                                    | May cause genetic defects if inhaled, in contact with skin and if swallowed.                                      |
| Carcinogenicity, Category 1B   | May cause cancer if inhaled, in contact with skin and if swallowed.   |
| Specific target organ toxicity following repeated exposure, Category 1 | Causes damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed. |
| Chronic (long term) aquatic hazard, category 3                         | Harmful to aquatic life with long lasting effects.  |
| Label elements   |   |
| Pictograms and Signal Words  |   |
|  |   |



### Hazard statements

| H226                 | Flammable liquid and vapour.  |
|----------------------|---|
| H340                 | May cause genetic defects if inhaled, in contact with skin and if swallowed.                                      |
| H350                 | May cause cancer if inhaled, in contact with skin and if swallowed.   |
| H372                 | Causes damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed. |
| H412                 | Harmful to aquatic life with long lasting effects.  |
| Precautionary statem | ents  |
| 0201                 | Obtain analisi instructions before use  |

| P201 | Obtain special instructions before use.                                   |
|------|---|
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. — No smoking.        |
| P233 | Keep container tightly closed.  |
| P240 | Ground/bond container and receiving equipment.                            |
| P241 | Use explosion-proof electrical/ventilating/lighting equipment.            |
|      |   |



| P242                 | Use only non-sparking tools.  |
|----------------------|---|
| P243                 | Take precautionary measures against static discharge.   |
| P260                 | Do not breathe mist/vapours/spray.  |
| P264                 | Wash skin thoroughly after handling.  |
| P270                 | Do not eat, drink or smoke when using this product.   |
| P273                 | Avoid release to the environment.   |
| P280                 | Wear protective gloves/protective clothing/eye protection/face protection.                          |
| P303+P361+P353       | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P308+P313            | IF exposed or concerned: Get medical advice/attention.  |
| P314                 | Get medical advice/attention if you feel unwell.  |
| P370+P378            | In case of fire, use a dry powder fire extinguisher to extinguish.                                  |
| P403+P235            | Store in a well-ventilated place. Keep cool.  |
| P405                 | Store locked up.  |
| P501                 | Dispose of contents/container in accordance with applicable regulations.                            |
| Ingredient(s) with u | nknown acute toxicity:  |

None

Hazards not otherwise classified identified during the classification process:

None

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

## Substances

Not Relevant

## Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

## List of components

| Qty     | Name   | Ident. Numb.   | Classification  | Registration Number |
|---------|--|--|---|---------------------|
| 25-50 % | petroleum hydrocarbons; Stoddard<br>Solvent                | CAS:8052-41-3<br>EC:232-489-3<br>Index:649-345-<br>00-4  | Flam. Liq. 3, H226; STOT RE 1,<br>H372; Asp. Tox. 1, H304; Muta.<br>1B, H340; Carc. 1B, H350  |                     |
| 5-10 %  | naphthenic oil; Low boiling point<br>naphtha - unspecified | CAS:64742-95-6<br>EC:265-199-0<br>Index:649-356-<br>00-4 | Asp. Tox. 1, H304; Flam. Liq. 3,<br>H226; Carc. 1B, H350  |                     |
| 5-10 %  | naphtha (petroleum),<br>hydrodesulfurized heavy            | CAS:64742-82-1<br>EC:265-185-4<br>Index:649-330-<br>00-2 | Flam. Liq. 3, H226; Asp. Tox. 1,<br>H304; STOT SE 3, H336; Aquatic<br>Chronic 2, H411   |                     |
| 2.5-5 % | asphalt; bitumen   | CAS:8052-42-4<br>EC:232-490-9                            | Carc. 2, H351   |                     |
| 1-2.5 % | 1,2,4-trimethyl-benzene;<br>pseudocumene                   | CAS:95-63-6<br>EC:202-436-9<br>Index:601-043-<br>00-3    | Flam. Liq. 3, H226; Eye Irrit. 2A,<br>H319; STOT SE 3, H335; Skin<br>Irrit. 2, H315; Aquatic Chronic 2,<br>H411; Acute Tox. 4, H332 |                     |

## 4. FIRST AID MEASURES

## Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose of safely.

#### In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration. In case of inhalation, consult a doctor immediately and show him packing or label.

# Most important symptoms/effects, acute and delayed

Not available

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

## **5. FIRE-FIGHTING MEASURES**

### **Extinguishing media**

Suitable extinguishing media:

### Unsuitable extinguishing media:

None in particular.

## Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: Not available

Explosive properties: Not Relevant

Oxidizing properties: Not Relevant

## Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

## **6. ACCIDENTAL RELEASE MEASURES**

### Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

## Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand Retain contaminated washing water and dispose it.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

## Conditions for safe storage, including any incompatibilities

Handle in a well ventilated place.

Always keep in a well ventilated place.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Store in a well-ventilated place. Keep cool.

Avoid direct exposure to sunlight.

Opened containers must be carefully resealed and kept upright to prevent leakage.

Flammable mixtures may accumulate within the headspace of containers at room temperature.

Storage at higher temperatures requires an appropriate evaluation of preventive and protection measures to be adopted.

Storage temperature must be defined on the basis of a proper risk evaluation. Refer to other sections for additional information.

Avoid accumulating electrostatic charge.

Keep away from food, drink and feed.

Electrical installations / working materials must comply with the technological safety standards.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Safety electric system.

Storage temperature: Not available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters** 

#### **Community Occupational Exposure Limits (OEL)** OEL Country **Occupational Exposure Limit** Туре petroleum hydrocarbons; OSHA Long Term: 2900 mg/m3 - 500 ppm Stoddard Solvent CAS: 8052-41-3 ACGIH Long Term: 100 ppm CNS impairment; eye, kidney and skin damage; nausea; ACGIH Long Term: 100 ppm CNS impairment; eye, kidney and skin damage; nausea asphalt; bitumen ACGIH Long Term: 0.5 mg/m3 CAS: 8052-42-4 A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free); eye and upper respiratory tract irritation (fume); MAK GERMANY Long Term: 1.5 mg/m3 ACGIH Long Term: 0.5 mg/m3 A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free); eye and upper respiratory tract irritation (fume) MAK SWITZERLAN Long Term: 10 mg/m3 D Long Term: 100 mg/m3 - 20 ppm 1,2,4-trimethyl-benzene; FU pseudocumene Behaviour Indicative CAS: 95-63-6 MAK GERMANY Long Term: 100 mg/m3 - 20 ppm AUSTRIA Long Term: 100 mg/m3 - 20 ppm; Short Term: 150 mg/m3 - 30 ppm ΜΔΚ **Biological limit values** asphalt; bitumen Biological Indicator: 1-Hydroxypyrene; Sampling Period: End of turn; End of working week CAS: 8052-42-4 Medium: Urine Remark: Not Quantitative

Biological Indicator: 1-Hydroxypyrene; Sampling Period: End of turn; End of working week Value: 2.5 µg/L; Medium: Urine Remark: Background

Biological Indicator: 3-Hydroxybenzo(a)pyrene with hydrolysis; Sampling Period: End of turn; End of working week Medium: Urine Remark: Not Quantitative

Appropriate engineering controls: Not available

#### Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; 29 CFR 1910.138 - ANSI/ISEA 105:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

Use impervious gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to 29 CFR 1910.134 - CSA Z94.4 for information on selection and use of appropriate respiratory protection equipment. Use adequate protective respiratory equipment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Physical state: Liquid Appearance and colour: liquid alluminium Odour: Like: Hydrocarbons, aliphatic Odour threshold: Not Relevant pH: Not Relevant Melting point / freezing point: Not Relevant Initial boiling point and boiling range: 179 °C (354 °F) Flash point: 40.5 °C (104.9 °F) Evaporation rate: Not Relevant Upper/lower flammability or explosive limits: Not Relevant Vapour density: >1 Vapour pressure: 2.00 (kPa 50>C) Relative density: 0.96 g/cm3 Solubility in water: Insoluble Solubility in oil: no data available Partition coefficient (n-octanol/water): Not Relevant Auto-ignition temperature: Not Relevant Decomposition temperature: Not Relevant Viscosity: Not Relevant Explosive properties: Not Relevant Oxidizing properties: Not Relevant Solid/gas flammability: Not Relevant

## Other information

Substance Groups relevant properties Not Relevant Miscibility: Not Relevant Fat Solubility: Not Relevant Conductivity: Not Relevant

## **10. STABILITY AND REACTIVITY**

#### Reactivity

Stable

It may generate dangerous reactions (See subsections below)

## **Chemical stability**

It may generate dangerous reactions (See subsections below)

## Possibility of hazardous reactions

It may catch fire on contact with oxidising mineral acids, and powerful oxidising agents.

## **Conditions to avoid**

Heat and open flames.

Avoid accumulating electrostatic charge.

### Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

### Hazardous decomposition products

Data not available.

## **11. TOXICOLOGICAL INFORMATION**

#### Information on toxicological effects

#### **Toxicological Information of the Preparation**

| a) acute toxicity                | Not classified   |
|----------------------------------|--|
|                                  | Based on available data, the classification criteria are not met |
| b) skin corrosion/irritation     | Not classified   |
|                                  | Based on available data, the classification criteria are not met |
| c) serious eye damage/irritation | Not classified   |
|                                  | Based on available data, the classification criteria are not met |
|                                  |  |

| d) respiratory or skin sensitisation | Not classified  |
|--------------------------------------|---|
|                                      | Based on available data, the classification criteria are not met  |
| e) germ cell mutagenicity            | The product is classified: Germ cell mutagenicity, Category 1B(H340)                                    |
| f) carcinogenicity                   | The product is classified: Carcinogenicity, Category 1B(H350)   |
| g) reproductive toxicity             | Not classified  |
|                                      | Based on available data, the classification criteria are not met  |
| h) STOT-single exposure              | Not classified  |
|                                      | Based on available data, the classification criteria are not met  |
| i) STOT-repeated exposure            | The product is classified: Specific target organ toxicity following repeated exposure, Category 1(H372) |
| j) aspiration hazard                 | Not classified  |
|                                      | Based on available data, the classification criteria are not met  |

### Toxicological information on main components of the mixture:

| petroleum hydrocarbons;<br>Stoddard Solvent                   | a) acute toxicity | LD50 Skin Rabbit > 3000 mg/kg                      |
|---|-------------------|--|
|   |                   | LC50 Inhalation Rat > 5.5 mg/l 4h                  |
| naphthenic oil; Low<br>boiling point naphtha -<br>unspecified | a) acute toxicity | LD50 Skin Rabbit > 2000 mg/kg                      |
|   |                   | LC50 Inhalation Rat = 3400 ppm 4h                  |
|   |                   | LD50 Oral Rat = 8400 mg/kg                         |
| naphtha (petroleum),<br>hydrodesulfurized heavy               | a) acute toxicity | LD50 Skin Rabbit > 3160 mg/kg                      |
|   |                   | LD50 Oral Rat > 5000 mg/kg                         |
| asphalt; bitumen  | a) acute toxicity | LD50 Skin Rabbit > 2000 mg/kg                      |
|   |                   | LD50 Oral Rat > 5000 mg/kg                         |
|   |                   | LC50 Inhalation Rat > 94.4 mg/m3 4.5h              |
|   |                   | LD50 Oral Rat > 5000 mg/kg                         |
| 1,2,4-trimethyl-benzene;<br>pseudocumene                      | a) acute toxicity | LD50 Skin Rabbit > 3160 mg/kg                      |
|   |                   | LC50 Inhalation Rat = 18 g/m3 4h                   |
|   |                   | LD50 Oral Rat = 3280 mg/kg                         |
|   |                   | LC50 Inhalation Rat = $18 \text{ g/m}3 4 \text{h}$ |

#### Substance(s) listed on the IARC Monographs:

asphalt; bitumen Group 2B

## Substance(s) listed as OSHA Carcinogen(s):

asphalt; bitumen

## Substance(s) listed as NIOSH Carcinogen(s):

asphalt; bitumen

## Substance(s) listed on the NTP report on Carcinogens:

None

## **12. ECOLOGICAL INFORMATION**

## Toxicity

Adopt good working practices, so that the product is not released into the environment. Eco-Toxicological Information:

## List of Eco-Toxicological properties of the product

The product is classified: Chronic (long term) aquatic hazard, category 3(H412)

## List of Eco-Toxicological properties of the components

| Component  | Ident. Numb.  | Ecotox Data  |
|--|---|--|
| naphthenic oil; Low boiling point<br>naphtha - unspecified | CAS: 64742-95-<br>6 - EINECS:<br>265-199-0 -<br>INDEX: 649-<br>356-00-4 | G: LC50 Avian Colinus virginianus > 6500 ppm 5d IUCLID                             |
|  |   | G: LD50 Avian Colinus virginianus > 2250 mg/kg IUCLID                              |
|  |   | a) Aquatic acute toxicity: LC50 Fish Oncorhynchus mykiss = 9.22 mg/L 96h<br>IUCLID |
|  |   | a) Aquatic acute toxicity: EC50 Daphnia Daphnia magna = 6.14 mg/L 48h<br>IUCLID    |
| 1,2,4-trimethyl-benzene;<br>pseudocumene                   | CAS: 95-63-6 -<br>EINECS: 202-<br>436-9 - INDEX:<br>601-043-00-3        | G: LC50 Avian Colinus virginianus > 6500 ppm 5d IUCLID                             |
|  |   | G: LD50 Avian Colinus virginianus > 2250 mg/kg IUCLID                              |
|  |   | a) Aquatic acute toxicity: LC50 Fish Pimephales promelas 7.19 mg/L 96h EPA         |
|  |   | a) Aquatic acute toxicity: EC50 Daphnia Daphnia magna = 6.14 mg/L 48h<br>IUCLID    |
| Persistence and degradability                              |   |  |
| N.A.   |   |  |
| Bioaccumulative potential                                  |   |  |
| N.A.   |   |  |
| Mobility in soil   |   |  |
| N.A.   |   |  |
| Other adverse effects                                      |   |  |
| N.A.   |   |  |

### **13. DISPOSAL CONSIDERATIONS**

### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

## Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

## Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

#### **14. TRANSPORT INFORMATION**

## **UN number**

DOT-UN Number: NA1993 ADR-UN number: 1993 IATA-Un number: 1993 IMDG-Un number: 1993

## UN proper shipping name

DOT-Proper Shipping Name: COMBUSTIBLE LIQUID, N.O.S. (solvent naphtha - mineral spirit) (Not regulated for US DOT if shipped by road in non-bulk containers of 119 gallons or less)

ADR-Shipping Name: FLAMMABLE LIQUID, N.O.S. (having a flash-point below 23 °C and viscous according to 2.2.3.1.4) (vapour pressure at 50 °C more than 110 kPa, boiling point of more than 35 °C) (solvent naphtha - mineral spirit) IATA-Technical name: FLAMMABLE LIQUID, N.O.S. (solvent naphtha - mineral spirit) IMDG-Technical name: FLAMMABLE LIOUID, N.O.S. (solvent naphtha - mineral spirit) Transport hazard class(es) DOT-Hazard Class: COMBUSTIBLE ADR-Class: 3 IATA-Class: 3 IMDG-Class: 3 **Packing group** DOT-Packing group: III ADR-Packing Group: III IATA-Packing group: III IMDG-Packing group: III **Environmental hazards** Marine pollutant: No Environmental Pollutant: Not Applicable DOT-RQ: No Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not Applicable Special precautions Department of Transportation (DOT): DOT-Special Provision(s): 148, IB3, T1, TP1 DOT-Label(s): NONE DOT-Symbol: D G DOT-Cargo Aircraft: 220 L DOT-Passenger Aircraft: 60 L DOT-Bulk: 241 DOT-Non-Bulk: 203 Road and Rail (ADR-RID): ADR-Label: 3 ADR-Hazard identification number: -ADR-Transport category (Tunnel restriction code): 3 (E) Air (IATA): IATA-Passenger Aircraft: 355 IATA-Cargo Aircraft: 366 IATA-Label: 3 IATA-Subsidiary hazards: -IATA-Erg: 3L IATA-Special Provisions: A3 Sea (IMDG): IMDG-Stowage Code: Category A IMDG-Stowage Note: -IMDG-Subsidiary hazards: -IMDG-Special Provisions: 223 274 955 IMDG-Page: N/A IMDG-Label: N/A IMDG-EMS: F-E, S-E IMDG-MFAG: N/A Pursuant to 49 CFR 173.120(b)(2) and 49 CFR 173.150(f) a flammable liquid with a flash point at or above 100 degrees Fahrenheit may be reclassed as a combustible liquid for transportation within the U.S. by motor vehicle or rail only.

## **15. REGULATORY INFORMATION**

## USA - Federal regulations

### **TSCA - Toxic Substances Control Act**

#### TSCA inventory:

All the components are listed on the TSCA inventory

### **TSCA listed substances:**

petroleum hydrocarbons; Stoddard is listed in TSCA  $\,$  Section 8b  $\,$  Solvent  $\,$ 

naphthenic oil; Low boiling point is listed in TSCA Section 8b naphtha - unspecified

naphtha (petroleum),<br/>hydrodesulfurized heavyis listed in TSCASection 8basphalt; bitumenis listed in TSCASection 8b

1,2,4-trimethyl-benzene; pseudocumene

# SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances:

No substances listed

## Section 304 - Hazardous substances:

No substances listed

## Section 313 - Toxic chemical list:

1,2,4-trimethyl-benzene; pseudocumene

## **CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act**

is listed in TSCA Section 8b

Substance(s) listed under CERCLA:

No substances listed

## CAA - Clean Air Act

CAA listed substances:

No substances listed

## **CWA - Clean Water Act**

## **CWA listed substances:**

No substances listed

### **USA - State specific regulations**

#### **California Proposition 65**

Substance(s) listed under California Proposition 65:

No substances listed

#### Massachusetts Right to know

## Substance(s) listed under Massachusetts Right to know:

petroleum hydrocarbons; Stoddard Solvent

asphalt; bitumen

1,2,4-trimethyl-benzene; pseudocumene

## Pennsylvania Right to know

### Substance(s) listed under Pennsylvania Right to know:

petroleum hydrocarbons; Stoddard Solvent

asphalt; bitumen

1,2,4-trimethyl-benzene; pseudocumene

## New Jersey Right to know

#### Substance(s) listed under New Jersey Right to know:

petroleum hydrocarbons; Stoddard Solvent

asphalt; bitumen

1,2,4-trimethyl-benzene; pseudocumene

### **Canada - Federal regulations**

## DSL - Domestic Substances List

## DSL (Domestic Substances List)

All the substances are listed in the DSL.

## NDSL - Non Domestic Substances List NDSL (Non Domestic Substances List)

No substances listed

## NPRI - National Pollutant Release Inventory

NPRI (National Pollutant Release Inventory) - List of substances listed.

No substances listed

## **16. OTHER INFORMATION**

Safety Data Sheet dated: 1/23/2023 - version 3 Additional classification information

NFPA Health: 2 = Moderate NFPA Flammability: 2 = Combustible liquid NFPA Reactivity: 0 = Minimal NFPA Special Risk: N.A.



Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

| Code  | Description  |  |
|---|--|--|
| H226  | Flammable liquid and vapour.   |  |
| H304  | May be fatal if swallowed and enters airway  | /S.  |
| H315  | Causes skin irritation.  |  |
| H319  | Causes serious eye irritation.   |  |
| H332  | Harmful if inhaled.  |  |
| H335  | May cause respiratory irritation.  |  |
| H336  | May cause drowsiness or dizziness.   |  |
| H340  | May cause genetic defects.   |  |
| H350  | May cause cancer.  |  |
| H351  | Suspected of causing cancer.   |  |
| H372  | Causes damage to organs through prolonge   | ed or repeated exposure.   |
| H411  | Toxic to aquatic life with long lasting effects  | 5.   |
|   | ,  |  |
| Code  | Hazard class and hazard category   | Description  |
| <b>Code</b><br>A.1/4/Inhal  | Hazard class and hazard category<br>Acute Tox. 4   | Description<br>Acute toxicity (inhalation), Category 4   |
|   |  | •  |
| A.1/4/Inhal   | Acute Tox. 4   | Acute toxicity (inhalation), Category 4  |
| A.1/4/Inhal<br>A.10/1   | Acute Tox. 4<br>Asp. Tox. 1  | Acute toxicity (inhalation), Category 4<br>Aspiration hazard, Category 1   |
| A.1/4/Inhal<br>A.10/1<br>A.2/2  | Acute Tox. 4<br>Asp. Tox. 1<br>Skin Irrit. 2   | Acute toxicity (inhalation), Category 4<br>Aspiration hazard, Category 1<br>Skin irritation, Category 2  |
| A.1/4/Inhal<br>A.10/1<br>A.2/2<br>A.3/2A  | Acute Tox. 4<br>Asp. Tox. 1<br>Skin Irrit. 2<br>Eye Irrit. 2A  | Acute toxicity (inhalation), Category 4<br>Aspiration hazard, Category 1<br>Skin irritation, Category 2<br>Eye irritation, Category 2A   |
| A.1/4/Inhal<br>A.10/1<br>A.2/2<br>A.3/2A<br>A.5/1B                                      | Acute Tox. 4<br>Asp. Tox. 1<br>Skin Irrit. 2<br>Eye Irrit. 2A<br>Muta. 1B  | Acute toxicity (inhalation), Category 4<br>Aspiration hazard, Category 1<br>Skin irritation, Category 2<br>Eye irritation, Category 2A<br>Germ cell mutagenicity, Category 1B  |
| A.1/4/Inhal<br>A.10/1<br>A.2/2<br>A.3/2A<br>A.5/1B<br>A.6/1B                            | Acute Tox. 4<br>Asp. Tox. 1<br>Skin Irrit. 2<br>Eye Irrit. 2A<br>Muta. 1B<br>Carc. 1B                                      | Acute toxicity (inhalation), Category 4<br>Aspiration hazard, Category 1<br>Skin irritation, Category 2<br>Eye irritation, Category 2A<br>Germ cell mutagenicity, Category 1B<br>Carcinogenicity, Category 1B  |
| A.1/4/Inhal<br>A.10/1<br>A.2/2<br>A.3/2A<br>A.5/1B<br>A.6/1B<br>A.6/2                   | Acute Tox. 4<br>Asp. Tox. 1<br>Skin Irrit. 2<br>Eye Irrit. 2A<br>Muta. 1B<br>Carc. 1B<br>Carc. 2                           | Acute toxicity (inhalation), Category 4<br>Aspiration hazard, Category 1<br>Skin irritation, Category 2<br>Eye irritation, Category 2A<br>Germ cell mutagenicity, Category 1B<br>Carcinogenicity, Category 1B<br>Carcinogenicity, Category 2   |
| A.1/4/Inhal<br>A.10/1<br>A.2/2<br>A.3/2A<br>A.5/1B<br>A.6/1B<br>A.6/2<br>A.8/3          | Acute Tox. 4<br>Asp. Tox. 1<br>Skin Irrit. 2<br>Eye Irrit. 2A<br>Muta. 1B<br>Carc. 1B<br>Carc. 2<br>STOT SE 3              | Acute toxicity (inhalation), Category 4<br>Aspiration hazard, Category 1<br>Skin irritation, Category 2<br>Eye irritation, Category 2A<br>Germ cell mutagenicity, Category 1B<br>Carcinogenicity, Category 1B<br>Carcinogenicity, Category 2<br>Specific target organ toxicity following single exposure, Category 3   |
| A.1/4/Inhal<br>A.10/1<br>A.2/2<br>A.3/2A<br>A.5/1B<br>A.6/1B<br>A.6/2<br>A.8/3<br>A.9/1 | Acute Tox. 4<br>Asp. Tox. 1<br>Skin Irrit. 2<br>Eye Irrit. 2A<br>Muta. 1B<br>Carc. 1B<br>Carc. 2<br>STOT SE 3<br>STOT RE 1 | Acute toxicity (inhalation), Category 4<br>Aspiration hazard, Category 1<br>Skin irritation, Category 2<br>Eye irritation, Category 2A<br>Germ cell mutagenicity, Category 1B<br>Carcinogenicity, Category 1B<br>Carcinogenicity, Category 2<br>Specific target organ toxicity following single exposure, Category 3<br>Specific target organ toxicity following repeated exposure, Category 1 |

### Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

GefStoffVO: Ordinance on Hazardous Substances, Germany.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

DNEL: Derived No Effect Level.

PNEC: Predicted No Effect Concentration.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

WGK: German Water Hazard Class.

KSt: Explosion coefficient.

## Paragraphs modified from the previous revision:

- 14. TRANSPORT INFORMATION