



Safety Data Sheet

H-Scav 650

1. Product and company identification

Product name : H-Scav 650
Material uses : Industrial applications: Scavengers

Date of issue/Date of revision : 4/30/2021
Date of previous issue : 4/30/2021
Version : 1.04
Supplier : Highline Energy Services
2176 H Road
Grand Junction, CO 81505
Information contact : 970-260-2423
e-mail address of person responsible for this SDS : HES_Engineering@outlook.com

Emergency telephone number

In USA, Canada and North America, 24 hour / 7 day emergency information for our product is provided by the CHEMTREC® Emergency Call Center based in the USA

| Country information | Emergency telephone number |
|--|----------------------------|
| USA, Canada, Puerto Rico, Virgin Islands | +1 800 424 9300 |
| In case of difficulties, or for ships at sea | +1 703 527 3887 |

In Europe, Middle East, Africa, Asia Pacific and South America 24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network



The main regional centres are listed here in Section 1.

Other local contact numbers for specific language support in Asia Pacific are listed in Section 16

| Country information | Emergency telephone number | Location |
|--|----------------------------|------------------|
| South America (all countries) | +1 215 207 0061 | Philadelphia USA |
| Brazil | +55 11 3197 5891 | Brazil |
| Mexico | +52 555 004 8763 | Mexico |
| Europe (all countries) Middle East, Africa (French, Portuguese, English) | +44 (0) 1235 239 670 | London, UK |
| Middle East, Africa (Arabic, French, English , Portuguese, Farsi) | +44 (0) 1235 239 671 | London, UK |
| Asia Pacific (all countries except China) | +65 3158 1074 | Singapore |
| China | 400 120 6011 | Beijing China |

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Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : H226 - Flammable liquid and vapor.
H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H370 - Causes damage to organs. (eyes)
H372 - Causes damage to organs through prolonged or repeated exposure. (lungs)

Precautionary statements

Prevention

: P280 - Wear protective gloves, protective clothing and eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P233 - Keep container tightly closed.
P271 - Use only outdoors or in a well-ventilated area.
P260 - Do not breathe vapor.
P270 - Do not eat, drink or smoke when using this product.
P264 - Wash thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.

Response

: P308 + P311 - IF exposed: Call a POISON CENTER or doctor.
P304 + P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
P301 + P312, P330 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P363 - Wash contaminated clothing before reuse.
P302 + P312, P352 - IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water.
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.

Section 2. Hazards identification

| | |
|---|---|
| Storage | : P405 - Store locked up. P403 + P235 - Store in a well-ventilated place. Keep cool. |
| Disposal | : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Hazards not otherwise classified | : None known. |
| Target organs | : Contains material which may cause damage to the following organs: gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea. |

See toxicological information (Section 11)

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

| Ingredient name | % | CAS number |
|--|----------|-------------------|
| methanol | 15 - 30 | 67-56-1 |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris (2-hydroxyethyl)hexahydro-1,3,5-triazine | 15 - 30 | 4719-04-4 |

Other CAS no.

| | |
|--|---|
| methanol | - |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris (2-hydroxyethyl)hexahydro-1,3,5-triazine | - |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Additional information

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

| | |
|--------------------|---|
| Eye contact | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. |
| Inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |

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Section 4. First aid measures

- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. Causes damage to organs following a single exposure if inhaled.
- Skin contact** : Harmful in contact with skin. Causes damage to organs following a single exposure in contact with skin. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.
- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Flash point** : Closed cup: 33.61°C (92.5°F)

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|------------------------|---|
| methanol | ACGIH TLV (United States, 3/2020). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 262 mg/m ³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m ³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 260 mg/m ³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 200 ppm 10 hours. TWA: 260 mg/m ³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 260 mg/m ³ 8 hours. |

Section 8. Exposure controls/personal protection

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|---|--|
| Appropriate engineering controls | : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. |
| Environmental exposure controls | : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |
| Individual protection measures | |
| Hygiene measures | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Eye/face protection | : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. |
| Skin protection | |
| Hand protection | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. |
| Body protection | : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. |
| Other skin protection | : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Respiratory protection | : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |

Section 9. Physical and chemical properties

Appearance

| | |
|-------------------------------------|-------------------|
| Physical state | : Liquid. |
| Color | : Colorless. |
| Odor | : Amine-like. |
| Odor threshold | : Not available. |
| pH | : 9.5 to 10 |
| Melting point/freezing point | : <-40°C (<-40°F) |

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Section 9. Physical and chemical properties

| | |
|---|--|
| Boiling point | : Lowest known value: 64.7°C (148.5°F) (methanol). Weighted average: 94.5°C (202.1°F) |
| Flash point | : Closed cup: 33.61°C (92.5°F) |
| Evaporation rate | : 2.1 (methanol) compared with butyl acetate |
| Flammability (solid, gas) | : Not available. |
| Lower and upper explosive (flammable) limits | : Greatest known range: Lower: 6% Upper: 44% (methanol) |
| Vapor pressure | : Highest known value: 16.9 kPa (127 mm Hg) (at 20°C) (methanol). Weighted average: 5.45 kPa (40.88 mm Hg) (at 20°C) |
| Vapor density | : Highest known value: 1.1 (Air = 1) (methanol). |
| Density | : 0.954 g/cm ³ |
| Specific gravity | : 0.954 |
| Density | : 7.95 lbs/gal |
| Solubility | : Easily soluble in the following materials: cold water, hot water. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : Lowest known value: 455°C (851°F) (methanol). |
| Decomposition temperature | : Not available. |
| Viscosity | : Not available. |

Section 10. Stability and reactivity

| | |
|---|---|
| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. |
| Incompatible materials | : Reactive or incompatible with the following materials: oxidizing materials |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Test | Species | Result | Dose |
|---|------------------------------------|--------------------|---------------------------------|-----------------------|
| methanol | - | Rat | LC50 Inhalation Gas. | 145000 ppm |
| | - | Rat | LC50 Inhalation Gas. | 64000 ppm |
| | - | Rabbit | LD50 Dermal | 15800 mg/kg |
| | - | Rat | LD50 Oral | 500 mg/kg |
| | - | Rat - Male, Female | LC50 Inhalation Dusts and mists | 371 mg/m ³ |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | OECD 403 Acute Inhalation Toxicity | | | |

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Section 11. Toxicological information

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|--|--------------------------------|--------------------|-------------|-------------|
| | OECD 402 Acute Dermal Toxicity | Rat - Male, Female | LD50 Dermal | >4000 mg/kg |
| | OECD 401 Acute Oral Toxicity | Rat - Male, Female | LD50 Oral | 1000 mg/kg |

Potential chronic health effects

| Product/ingredient name | Test | Species | Result | Dose |
|---|--|--------------------|------------------------|----------------------------|
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents | Rat - Male, Female | Sub-chronic LOAEL Oral | 285.2 mg/kg Nominal |
| | OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents | Rat - Male, Female | Sub-chronic NOEL Oral | 14.1 to 21.1 mg/kg Nominal |
| | OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents | Rat - Male, Female | Sub-chronic NOAEL Oral | 64.1 to 91 mg/kg Nominal |

Irritation/Corrosion

| Product/ingredient name | Test | Species | Result |
|---|---|------------------------|--|
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | OECD 405 Acute Eye Irritation/Corrosion | Rabbit | Eyes - Mild irritant - - |
| | OECD 404 Acute Dermal Irritation/Corrosion | Rabbit | Skin - Edema 0 77.4% 1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol |
| | OECD 404 Acute Dermal Irritation/Corrosion | Rabbit | Skin - Erythema/ Eschar 0 77.4% 1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol |
| | OECD 437 Bovine Corneal Opacity and Permeability Test | Isolated bovine cornea | Eyes - Mild irritant - 72.8% 1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol |

Sensitization

| Product/ingredient name | Test | Species | Result |
|---|------------------------|------------|---------------|
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | Open Epicutaneous Test | Guinea pig | Sensitizing - |

Mutagenicity

Section 11. Toxicological information

| Product/ingredient name | Test | Experiment | Result |
|---|---|---|----------|
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | OECD 471 Bacterial Reverse Mutation Test | Experiment: In vitro Subject: Bacteria | Negative |
| | OECD 486 Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells <i>in vivo</i> | Experiment: In vitro Subject: Mammalian-Animal | Negative |

Carcinogenicity

Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|----------|------------|-------------------|---------------|
| methanol | Category 1 | inhalation | eyes |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|---|------------|-------------------|---------------|
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | Category 1 | inhalation | lungs |

Aspiration hazard

Not available.

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|--|--|----------|
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | Acute EC50 16.912 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Acute EC50 22200 to 23400 mg/l Fresh water | Daphnia - Daphnia obtusa - Neonate | 48 hours |
| | Acute LC50 2500000 µg/l Marine water | Crustaceans - Crangon crangon - Adult | 48 hours |
| | Acute LC50 100 mg/l Fresh water | Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| | Chronic NOEC 9.96 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Acute EC50 6.66 mg/l Nominal Fresh water | Algae - Desmodesmus subspicatus | 72 hours |

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Section 12. Ecological information

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|--|--|--|----------|
| | Acute EC50 11.9 mg/l Measured Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 16.07 mg/l Measured Fresh water | Fish - Brachydanio rerio (Danio rerio) | 96 hours |

Persistence and degradability

| Product/ingredient name | Test | Result |
|---|---|--------------------------------|
| methanol 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | OECD 301D Ready Biodegradability - Closed Bottle Test | 99 % - 28 days |
| | OECD 301A Ready Biodegradability - DOC Die-Away Test | 90 to 100 % - Readily - 8 days |
| | OECD 301C Ready Biodegradability - Modified MITI Test (I) | 85 to 95 % - Readily - 10 days |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|------------|------------------|
| methanol 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | - | - | Readily |
| | Fresh water <0.08 days, pH 4, 50°C (OECD 111) | - | Readily |
| | Fresh water <0.08 days, pH 7, 50°C (OECD 111) | - | |
| | Fresh water <0.08 days, pH 9, 50°C (OECD 111) | - | |




Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|-----|-----------|
| methanol 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol; 1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine | -0.77 | <10 | low |
| | -2 | - | low |

Section 13. Disposal considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions 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 non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | IMDG | IATA |
|----------------------------|---|--|--|
| UN number | UN1993 | UN1993 | UN1993 |
| UN proper shipping name | Flammable liquids, n.o.s. (methanol, solution) RQ (methanol) | FLAMMABLE LIQUID, N.O.S. (methanol, solution) | Flammable liquid, n.o.s. (methanol, solution) |
| Transport hazard class(es) | 3  | 3  | 3  |
| Packing group | II | II | II |
| Environmental hazards | No. | No. | No. |
| Additional information | <p>Reportable quantity 24918.5 lbs / 11313 kg [3132.7 gal / 11858.5 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.</p> <p>Limited quantity Yes.</p> <p>Packaging instruction Exceptions: 150. Non-bulk: 202. Bulk: 242.</p> <p>Quantity limitation Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.</p> <p>Special provisions IB2, T7, TP1, TP8, TP28</p> | <p>Emergency schedules F-E, S-E</p> <p>Special provisions 274</p> | |

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 4(a) final test rules:** 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol
TSCA 12(b) one-time export: 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol
United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 : Listed
 (b) Hazardous Air Pollutants (HAPs)
[SARA 302/304](#)

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Section 15. Regulatory information

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

SARA 313

| | Product name | CAS number | % |
|---------------------------------|--------------|------------|---------|
| Form R - Reporting requirements | methanol | 67-56-1 | 15 - 30 |
| Supplier notification | methanol | 67-56-1 | 15 - 30 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: METHANOL; METHYL ALCOHOL; METHANOL
New York : The following components are listed: Methanol; Methanol
New Jersey : The following components are listed: METHYL ALCOHOL; METHANOL; METHYL ALCOHOL; METHANOL
Pennsylvania : The following components are listed: METHANOL; METHANOL
California Prop. 65 : **WARNING:** This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

| Ingredient name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level | Contains : ppm (or %) |
|-----------------|--------|--------------|---------------------------|---------------------------------|-----------------------|
| methanol | No. | Yes. | | Yes. | 15 - 30 |

International lists

National inventory

Australia inventory (AICS) : All components are listed or exempted.
Canada inventory : All components are listed or exempted.
China inventory (IECSC) : All components are listed or exempted.
Europe inventory : All components are listed or exempted.
Japan inventory : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): Not determined.
New Zealand Inventory of Chemicals (NZIoC) : All components are listed or exempted.
Philippines inventory (PICCS) : All components are listed or exempted.
Korea inventory (KECI) : All components are listed or exempted.

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Section 15. Regulatory information

Taiwan inventory (TCSI)

: All components are listed or exempted.

United States inventory (TSCA 8b)

: All components are listed or exempted.

Our REACH (pre-) registrations DO NOT cover the following:

1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
 2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations
- Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
 - In the case of importation only, to make use of the "Only Representative" provisions, if available.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | |
|------------------|---|
| Health | 2 |
| Flammability | 3 |
| Physical hazards | 0 |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of printing : 2021-04-30

Date of issue/Date of revision : 4/30/2021

Date of previous issue : 4/30/2021

Version : 1.04

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Date of issue/Date of revision : 4/30/2021

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Section 16. Other information

Indicates information that has changed from previously issued version.

[Notice to reader](#)

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.