

SAFETY DATA SHEET

Mixture Ethylene Oxide 90% / Carbon Dioxide 10%



According to Taiwan National Standards CNS 15030

Section 1. Identification

GHS product identifier : Mixture Ethylene Oxide 90% / Carbon Dioxide 10%
Other means of identification : Not available.
Product type : Liquefied gas.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Medical sterilization

Uses advised against

Not applicable.

Manufacturer

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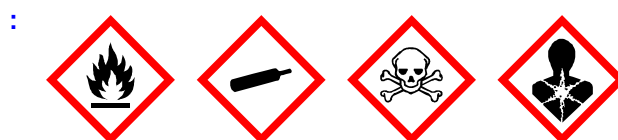
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Section 2. Hazards identification

Classification of the substance or mixture : FLAMMABLE GASES - Category 1A
GASES UNDER PRESSURE - Liquefied gas
ACUTE TOXICITY (oral) - Category 3
ACUTE TOXICITY (inhalation) - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 1
CARCINOGENICITY - Category 1
TOXIC TO REPRODUCTION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
AQUATIC TOXICITY (ACUTE) - Category 3

GHS label elements

Hazard pictograms



Signal word

: Danger

- Hazard statements** :
- H220 - Extremely flammable gas.
 - H280 - Contains gas under pressure; may explode if heated.
 - H301 + H331 - Toxic if swallowed or if inhaled.
 - H315 - Causes skin irritation.
 - H317 - May cause an allergic skin reaction.
 - H319 - Causes serious eye irritation.
 - H340 - May cause genetic defects.
 - H350 - May cause cancer.
 - H360 - May damage fertility or the unborn child.
 - H370 - Causes damage to organs.
 - H372 - Causes damage to organs through prolonged or repeated exposure.
 - H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

- Prevention** :
- P203 - Obtain, read and follow all safety instructions before use.
 - P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
 - P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P273 - Avoid release to the environment.
 - P260 - Do not breathe gas.
 - P270 - Do not eat, drink or smoke when using this product.
 - P264 - Wash thoroughly after handling.

- Response** :
- P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 - P318 - IF exposed or concerned, get medical advice.
 - P381 - In case of leakage, eliminate all ignition sources.
 - P308 + P316 - IF exposed or concerned: Get emergency medical help immediately.
 - P304 + P340, P316 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately.
 - P301 + P316, P330 - IF SWALLOWED: Get emergency medical help immediately. Rinse mouth.
 - P302 + P352 - IF ON SKIN: Wash with plenty of water.
 - P333 + P317 - If skin irritation or rash occurs: Get medical help.
 - P332 + P317 - If skin irritation occurs: Get medical help.
 - P362 + P364 - Take off contaminated clothing and wash it before reuse.
 - 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 + P317 - If eye irritation persists: Get medical help.
 - P319 - Get medical help if you feel unwell.

- Storage** :
- P405 - Store locked up.
 - P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

- Disposal** :
- P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

| Chinese name | % (v/v) | Identifiers | Type |
|---|---------|---------------|---------|
| Mixture Ethylene Oxide 90% / Carbon Dioxide 10% | 100 | - | [*] |
| Ethylene oxide | 90 | CAS: 75-21-8 | [1] [2] |
| Carbon dioxide, gas | 10 | CAS: 124-38-9 | [1] |

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.

Type

- [*] Mixture
- [1] Constituent
- [2] Toxic chemical substance

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 15 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.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Continue to rinse for at least 15 minutes. Get medical attention. If necessary, call a poison center or physician. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. 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. As this product rapidly becomes a gas when released, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation. Liquid can cause burns similar to frostbite.
- Inhalation** : Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- Skin contact** : Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.
- Ingestion** : Toxic if swallowed. Causes damage to organs following a single exposure if swallowed. Ingestion of liquid can cause burns similar to frostbite.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
frostbite
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
frostbite
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
frostbite
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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 an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

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. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all

ignition sources if safe to do so.

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. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

: Accidental releases pose a serious fire or explosion hazard. 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. Do not breathe gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions

: Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. 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). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill

: Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

Large spill

: Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

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. Contains gas under pressure. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe gas. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. 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. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate 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 away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Eliminate all ignition sources. Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|---------------------|---|
| Ethylene oxide | TW Ministry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018) Carc. STEL 15 minutes: 2 ppm. STEL 15 minutes: 3.6 mg/m ³ . TWA 8 hours: 1 ppm. TWA 8 hours: 1.8 mg/m ³ . |
| Carbon dioxide, gas | TW Ministry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 3/2018) STEL 15 minutes: 5000 ppm. STEL 15 minutes: 9000 mg/m ³ . TWA 8 hours: 5000 ppm. TWA 8 hours: 9000 mg/m ³ . |

Biological exposure indices

No exposure indices known.

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.

Individual protection measures

- 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.
- 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. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. 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.
- Eye 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.
- 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.

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.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Gas.
Color : Not available.
Odor : Not available.
Odor threshold : Not available.
pH : Not applicable.
Melting point/freezing point : -111.7°C (-169.1°F) [ethylene oxide]
Boiling point or initial boiling point and boiling range : 10.7°C (51.3°F) [ethylene oxide]
Flash point : Closed cup: -29°C (-20.2°F)
Evaporation rate : 109.5 (butyl acetate = 1) [ethylene oxide]
Flammability : Not available.
Lower and upper explosion limit/flammability limit : Lower: 3% [EU A.11]
Upper: 100% [EU A.11]
Vapor pressure : 175.2 kPa (1314.1117 mm Hg) [ethylene oxide]
Relative vapor density : 1.5 [Air = 1] [ethylene oxide]
Relative density : 0.9
Solubility in water : Not available.
Partition coefficient: n-octanol/water : -0.3 [OECD 107]
Auto-ignition temperature : 429°C (804.2°F) [EU A.15]
Decomposition temperature : Not available.
Heat of combustion : -26702480 J/kg
Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

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. Do not allow gas to accumulate in low or confined areas.

Incompatible materials : No specific data.

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

Ethylene oxide

Result

Rat - Oral - LD50

72 mg/kg

Rat - Inhalation - LC50 Gas.

800 ppm [4 hours]

Toxic effects: Lung, Thorax, or Respiration - Other changes

Liver - Other changes Kidney, Ureter, and Bladder - Other

changes

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Ethylene oxide

Result

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 6 hours

Amount/concentration applied: 18 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Ethylene oxide

Result

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Ethylene oxide

Result

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Aspiration hazard

Not available.

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact

: Causes serious eye irritation. Liquid can cause burns similar to frostbite.

Inhalation

: Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.

Skin contact

: Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

Ingestion

: Toxic if swallowed. Causes damage to organs following a single exposure if swallowed. Ingestion of liquid can cause burns similar to frostbite.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

: Adverse symptoms may include the following:
pain or irritation
watering
redness
frostbite

Inhalation

: Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact

: Adverse symptoms may include the following:
irritation
redness
frostbite
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion

: Adverse symptoms may include the following:
frostbite
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure**Potential immediate effects** : Not available.**Potential delayed effects** : Not available.**Long term exposure****Potential immediate effects** : Not available.**Potential delayed effects** : Not available.**Potential chronic health effects**

Not available.

Conclusion/Summary [Product] : Not available.**General** : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.**Mutagenicity** : May cause genetic defects.**Reproductive toxicity** : May damage fertility or the unborn child.**Numerical measures of toxicity****Acute toxicity estimates**

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| Mixture Ethylene Oxide 90% / Carbon Dioxide 10% | 80 | N/A | 888.9 | N/A | N/A |
| Ethylene oxide | 72 | N/A | 800 | N/A | N/A |

Section 12. Ecological information**Toxicity****Product/ingredient name**

Ethylene oxide

Result**Acute - LC50 - Fresh water**Fish - Fathead minnow - *Pimephales promelas*

84 mg/l [96 hours]

Effect: Mortality**Acute - LC50 - Fresh water**Daphnia - Water flea - *Daphnia magna*

137 mg/l [48 hours]

Effect: Mortality**Conclusion/Summary [Product]** : Not available.**Persistence and degradability**

Not available.

Conclusion/Summary [Product] : Not available.**Bioaccumulative potential**

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|-----|-----------|
| Mixture Ethylene Oxide 90% / Carbon Dioxide 10% | -0.3 | - | Low |
| Ethylene oxide | -0.3 | - | Low |
| Carbon dioxide, gas | 0.83 | - | Low |

Mobility in soil

Soil/Water partition coefficient : Not available.




Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : 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. Empty pressure vessels should be returned to the supplier. 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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

| | UN | IMDG | IATA |
|-----------------------------------|--|--|--|
| UN number | UN3300 | UN3300 | UN3300 |
| UN proper shipping name | ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE | ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE | Ethylene oxide and carbon dioxide mixture |
| Transport hazard class(es) | 2.3 (2.1)  | 2.3 (2.1)  | 2.3 (2.1)  |
| Packing group | - | - | - |
| Environmental hazards | No. | No. | No. |

Additional information

IMDG : **Emergency schedules** F-D, S-U

IATA : **Quantity limitation** Passenger and Cargo Aircraft: Forbidden. Packaging instructions: Forbidden. Cargo Aircraft Only: Forbidden. Packaging instructions: Forbidden. Limited Quantities - Passenger Aircraft: Forbidden. Packaging instructions: Forbidden.
Special provisions A2

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.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

TCCSCA List of toxic chemicals

| Listed no. | Series no. | Ingredient name | RQ | Class 1 | Class 2 | Class 3 | Class 4 |
|------------|------------|-----------------|-------|---------|---------|---------|---------|
| 61 | 1 | ethylene oxide | 50 kg | Listed | Listed | - | - |

TCCSCA List of concerned chemicals

Not applicable.

OSHA Enforcement Rules Article 28 : This product contains substances "Specially hazardous to health": ethylene oxide.

OSHA Article 30 : Employers shall not employ a pregnant female laborer to perform any potentially dangerous or harmful work involving this product. (OSHA Art. 30 first part, par 5)

Standards for hazard prevention for specific chemical hazards

| Ingredient name | Name on list | Status |
|-----------------|----------------|---------------|
| ethylene oxide | Ethylene oxide | Class C (1st) |

Priority management chemicals, Article 2

Chemicals hazardous to workers under the age of 18 and to pregnant female worker or who are within their first postpartum year (Article 2.1) : Applicable

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

| List name | Ingredient name | Status |
|-----------|--|--------|
| Pesticide | Ethylene oxide (ISO); Anproline; Oxirane; alpha, beta-Oxidoethane; ETO | Listed |

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Eurasian Economic Union** : **Russian Federation inventory**: All components are listed or exempted.
- Japan** : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
- New Zealand** : All components are listed or exempted.
- Philippines** : All components are listed or exempted.
- Republic of Korea** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.
- Thailand** : All components are listed or exempted.
- Turkey** : All components are listed or exempted.
- United States** : All components are active or exempted.
- Viet Nam** : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

| Classification | Justification |
|---|-----------------------|
| FLAMMABLE GASES - Category 1A | On basis of test data |
| GASES UNDER PRESSURE - Liquefied gas | On basis of test data |
| ACUTE TOXICITY (oral) - Category 3 | Calculation method |
| ACUTE TOXICITY (inhalation) - Category 3 | Calculation method |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| SKIN SENSITIZATION - Category 1 | Calculation method |
| GERM CELL MUTAGENICITY - Category 1 | Calculation method |
| CARCINOGENICITY - Category 1 | Calculation method |
| TOXIC TO REPRODUCTION - Category 1 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 | Calculation method |
| AQUATIC TOXICITY (ACUTE) - Category 3 | Calculation method |

References : Not available.

Person who prepared the SDS

History

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Version : 1

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)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

✔ Indicates information that has changed from previously issued version.

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