

Material Safety Data Sheet

Coulomat AK, AQUASTAR® , For Moisture Determination



1. Product and company identification

Product name : Coulomat AK, AQUASTAR® , For Moisture Determination
Product code : AX1697E
Supplier : EMD Chemicals Inc.
480 S. Democrat Rd.
Gibbstown, NJ 08027
856-423-6300 Technical Service
Monday-Friday: 8:00 -5:00 PM
Synonym : None.
Material uses : Other non-specified industry: Analytical reagent.
Validation date : 6/22/2009.
In case of emergency : 800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

2. Hazards identification

Emergency overview : DANGER!
MAY BE FATAL IF SWALLOWED.
CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
BIRTH DEFECT HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE BIRTH DEFECTS.
HARMFUL IF INHALED OR ABSORBED THROUGH SKIN.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: EYE, LENS OR CORNEA.
SUSPECT CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER.
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LUNGS, REPRODUCTIVE SYSTEM, LIVER, HEART, CARDIOVASCULAR SYSTEM, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM.

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.
Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Physical state : Liquid.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation : Toxic by inhalation. Corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion : Very toxic if swallowed. May cause burns to mouth, throat and stomach.

Skin : Corrosive to the skin. Causes burns. Toxic in contact with skin.

Eyes : Corrosive to eyes. Causes burns.

Potential chronic health effects

Carcinogenicity : Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : Contains material which can cause developmental abnormalities.

Continued on next page

2. Hazards identification

- Fertility effects** : No known significant effects or critical hazards.
- Target organs** : Contains material which causes damage to the following organs: eye, lens or cornea. Contains material which may cause damage to the following organs: blood, kidneys, lungs, the reproductive system, liver, heart, cardiovascular system, upper respiratory tract, skin, central nervous system (CNS).
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3. Composition/information on ingredients

| <u>Name</u> | <u>CAS number</u> | <u>% by weight</u> |
|------------------------|-------------------|--------------------|
| 2-Methoxyethanol | 109-86-4 | 50 - 75 |
| Chloroform | 67-66-3 | 10 - 30 |
| Iodine | 7553-56-2 | 0 - 20 |
| 2,2,2-Trifluoroethanol | 75-89-8 | 0 - 20 |
| Imidazole | 288-32-4 | 0 - 20 |
| Sulfur Dioxide | 7446-09-5 | 0 - 10 |

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. Fire-fighting measures

- Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : 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.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
halogenated compounds
carbonyl halides
- 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.

6 . Accidental release measures

- Personal precautions** : 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- 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 for cleaning up

- Spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7 . Handling and storage

- Handling** : Avoid exposure during pregnancy. 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. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container, protected from direct sunlight. 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.

8 . Exposure controls/personal protection

| Ingredient | Exposure limits |
|------------------|---|
| 2-Methoxyethanol | <p>ACGIH TLV (United States, 1/2008). Absorbed through skin. TWA: 0.1 ppm 8 hour(s).</p> <p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 25 ppm 8 hour(s). TWA: 80 mg/m³ 8 hour(s).</p> <p>NIOSH REL (United States, 6/2008). Absorbed through skin. TWA: 0.1 ppm 10 hour(s). TWA: 0.3 mg/m³ 10 hour(s).</p> <p>OSHA PEL (United States, 11/2006). Absorbed through skin. TWA: 25 ppm 8 hour(s). TWA: 80 mg/m³ 8 hour(s).</p> |
| Chloroform | <p>ACGIH (United States, 1996). TWA: 49 mg/m³</p> <p>OSHA (United States, 1989). TWA: 9.78 mg/m³</p> <p>ACGIH TLV (United States, 1/2008). TWA: 10 ppm 8 hour(s). TWA: 49 mg/m³ 8 hour(s).</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 2 ppm 8 hour(s). TWA: 9.78 mg/m³ 8 hour(s).</p> <p>NIOSH REL (United States, 6/2008). STEL: 2 ppm 60 minute(s). STEL: 9.78 mg/m³ 60 minute(s).</p> <p>OSHA PEL (United States, 11/2006).</p> |

8 . Exposure controls/personal protection

| | |
|------------------------|--|
| Iodine | <p>CEIL: 50 ppm CEIL: 240 mg/m³</p> <p>OSHA PEL 1989 (United States, 3/1989). CEIL: 0.1 ppm CEIL: 1 mg/m³</p> <p>ACGIH (United States, 1994). CEIL: 1 mg/m³</p> <p>OSHA (United States, 1989). CEIL: 1 mg/m³</p> <p>NIOSH REL (United States, 6/2008). CEIL: 0.1 ppm CEIL: 1 mg/m³</p> <p>OSHA PEL (United States, 11/2006). CEIL: 0.1 ppm CEIL: 1 mg/m³</p> <p>ACGIH TLV (United States, 1/2008). TWA: 0.01 ppm 8 hour(s). Form: Inhalable fraction and vapor STEL: 0.1 ppm 15 minute(s). Form: Vapour and aerosols</p> |
| 2,2,2-Trifluoroethanol | <p>AIHA WEEL (United States, 1/2008). TWA: 0.3 ppm 8 hour(s).</p> |
| Sulfur Dioxide | <p>ACGIH TLV (United States, 1/2008). TWA: 2 ppm 8 hour(s). TWA: 5.2 mg/m³ 8 hour(s). STEL: 5 ppm 15 minute(s). STEL: 13 mg/m³ 15 minute(s).</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 2 ppm 8 hour(s). TWA: 5 mg/m³ 8 hour(s). STEL: 5 ppm 15 minute(s). STEL: 10 mg/m³ 15 minute(s).</p> <p>NIOSH REL (United States, 6/2008). TWA: 2 ppm 10 hour(s). TWA: 5 mg/m³ 10 hour(s). STEL: 5 ppm 15 minute(s). STEL: 13 mg/m³ 15 minute(s).</p> <p>OSHA PEL (United States, 11/2006). TWA: 5 ppm 8 hour(s). TWA: 13 mg/m³ 8 hour(s).</p> |

Consult local authorities for acceptable exposure limits.

- Engineering measures** : 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.
- 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : 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.

8 . Exposure controls/personal protection

- Eyes** : 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 or dusts. Recommended: splash goggles , face shield
- Skin** : 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.
Recommended: safety apron
- 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.

9 . Physical and chemical properties

- Physical state** : Liquid.
- Color** : Yellow to red.
- Odor** : Not available.
- pH** : Not available.
- Boiling/condensation point** : Not available.
- Melting/freezing point** : Not available.
- Relative density** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Odor threshold** : Not available.
- Evaporation rate** : Not available.
- Solubility** : Insoluble in the following materials: water

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.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : Avoid exposure during pregnancy.
- Materials to avoid** : Highly reactive or incompatible with the following materials: oxidizing materials and alkalis.
Reactive or incompatible with the following materials: metals and acids.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Conditions of reactivity** : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.
Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.

11 . Toxicological information

Acute toxicity

| Product/ingredient name | Test Route | Species | Result |
|-------------------------|------------|---------|--------|
|-------------------------|------------|---------|--------|

11 . Toxicological information

| | | | |
|------------------------|--------------------------|------------|-------------------------|
| 2-Methoxyethanol | LD50 Dermal | Rabbit | 2000 mg/kg |
| | LD50 Dermal | Rabbit | 1280 mg/kg |
| | LD50 | Rat | 2500 mg/kg |
| | Intraperitoneal | | |
| | LD50 Intravenous | Rat | 2068 mg/kg |
| | LD50 Oral | Rat | 2460 mg/kg |
| | LD50 Oral | Rat | 2370 mg/kg |
| | LD50 Oral | Rabbit | 890 mg/kg |
| | LDLo Oral | Human | 143 mg/kg |
| | LDLo Oral | Human | 3380 mg/kg |
| | TDL _o Oral | Rat | 200 mg/kg |
| | TDL _o Oral | Rat | 150 mg/kg |
| | TDL _o | Rat | 50 mg/kg |
| | Intraperitoneal | | |
| | TDL _o | Rat | 150 mg/kg |
| | Intraperitoneal | | |
| | TDL _o Oral | Rat | 250 mg/kg |
| | LC50 Inhalation Gas. | Rat | 1500 ppm |
| | LC50 Inhalation Vapor | Rat | 1500 ppm |
| Imidazole | LD50 Oral | Guinea pig | 760 mg/kg |
| | LD50 Oral | Mouse | 880 mg/kg |
| | LD50 Oral | Rat | 220 mg/kg |
| | LD50 | Rat | 626 mg/kg |
| | Subcutaneous | | |
| 2,2,2-Trifluoroethanol | LD50 Dermal | Rat | 1680 mg/kg |
| | LD50 Dermal | Rabbit | 390 uL/kg |
| | LD50 | Rat | 1.75 mg/kg |
| | Intraperitoneal | | |
| | LD50 Oral | Mouse | 366 mg/kg |
| | LD50 Oral | Rat | 240 mg/kg |
| | LD50 | Rat | 15 mg/kg |
| | Subcutaneous | | |
| | LC50 Inhalation Gas. | Rat | 470 ppm |
| Chloroform | LD50 | Rat | 894 mg/kg |
| | Intraperitoneal | | |
| | LD50 Oral | Rat | 695 mg/kg |
| | LD50 Oral | Rat | 300 mg/kg |
| | LD50 Oral | Mouse | 36 mg/kg |
| | LD50 Dermal | Rabbit | >20 g/kg |
| | LD50 Oral | Rat | 1250 mg/kg |
| | LDLo Oral | Man | 2514 mg/kg |
| | LDLo Oral | Rabbit | 500 mg/kg |
| | TDL _o Oral | Rat | 0.5 mL/kg |
| | TDL _o Oral | Rat | 14.9 mg/kg |
| | TDL _o Oral | Rat | 119.37 mg/kg |
| | TDL _o | Rat | 0.5 mL/kg |
| | Intraperitoneal | | |
| | TDL _o | Rat | 180 mg/kg |
| | Intraperitoneal | | |
| | LC50 Inhalation Vapor | Rat | 6000 mg/m ³ |
| | LC50 Inhalation Vapor | Rat | 47702 mg/m ³ |
| | LC50 Inhalation Vapor | Rat | 47702 mg/m ³ |
| Iodine | LD50 Oral | Rat | 14 g/kg |
| | LD50 Oral | Rat | 14000 mg/kg |

11 . Toxicological information

| | | | |
|----------------|-----------------|-------|-------------|
| | LD50 | Rat | 10500 mg/kg |
| | Subcutaneous | | |
| | LDLo Oral | Human | 28 mg/kg |
| | LDLo Oral | Dog | 800 mg/kg |
| Sulfur Dioxide | LC50 Inhalation | Rat | 2520 ppm |
| | Gas. | | |

Carcinogenicity**Classification**

| Product/ingredient name | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|-------------------------|-------|------|-----|-------|----------|------|
| Chloroform | A3 | 2B | - | + | Possible | - |
| Iodine | A4 | - | - | - | - | - |
| Sulfur Dioxide | A4 | 3 | - | - | - | - |

Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity

No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

12 . Ecological information**Aquatic ecotoxicity**

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--|---|----------|
| 2-Methoxyethanol | Acute LC50 16000 mg/L | Fish | 96 hours |
| | Acute LC50 >10000 mg/L | Fish | 96 hours |
| | Acute LC50 >10000000 ug/L Fresh water | Fish - Bluegill - Lepomis macrochirus - 33 to 75 mm | 96 hours |
| 2,2,2-Trifluoroethanol | Acute LC50 119 mg/L | Fish | 96 hours |
| | Acute LC50 119000 to 135000 ug/L Fresh water | Fish - Fathead minnow - Pimephales promelas - 31 to 32 days - 17.7 mm - 0.076 g | 96 hours |
| | Acute EC50 950 mg/L | Algae | 48 hours |
| Chloroform | Acute EC50 560 mg/L | Algae | 48 hours |
| | Acute LC50 81.5 to 106 mg/L Marine water | Crustaceans - Northern pink shrimp - Penaeus duorarum - 35 to 50 mm | 48 hours |
| | Acute LC50 65.7 mg/L Fresh water | Daphnia - Water flea - Daphnia magna | 48 hours |
| | Acute LC50 17.1 mg/L | Fish | 96 hours |
| | Acute LC50 16.2 mg/L | Fish | 96 hours |
| | Acute LC50 15.1 mg/L | Fish | 96 hours |
| | Acute LC50 13.3 mg/L | Fish | 96 hours |
| | Acute LC50 17.1 ppm Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss | 96 hours |
| | Acute LC50 16.2 ppm Fresh water | Fish - Bluegill - Lepomis macrochirus | 96 hours |
| | Acute LC50 15.1 ppm Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss | 96 hours |
| | Acute LC50 13.3 ppm Fresh water | Fish - Bluegill - Lepomis macrochirus | 96 hours |
| | Acute LC50 13300 ug/L Fresh water | Fish - Bluegill - Lepomis macrochirus - 17.1 cm - 126.4 g | 96 hours |
| | Acute LC50 758000 to 850000 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - Young - <=24 hours | 48 hours |
| | Acute LC50 353000 to | Daphnia - Water flea - | 48 hours |

12 . Ecological information

| | | | |
|--------|--|--|----------|
| | | <12 hours | |
| | Acute LC50 290000 to 512000 ug/L Fresh water | Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <12 hours | 48 hours |
| | Acute LC50 66800 to 71900 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 66500 to 78500 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 16200 ug/L Fresh water | Fish - Bluegill - Lepomis macrochirus - 16.9 cm - 129.9 g | 96 hours |
| | Acute LC50 63800 to 78000 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 15100 to 22100 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss | 96 hours |
| | Acute LC50 29000 to 47000 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - <24 hours | 48 hours |
| | Acute LC50 15100 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 11.5 cm - 16.8 g | 96 hours |
| | Acute LC50 17100 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 8.8 cm - 7.6 g | 96 hours |
| | Acute LC50 13300 to 20800 ug/L Fresh water | Fish - Bluegill - Lepomis macrochirus | 96 hours |
| Iodine | Acute EC50 0.33 mg/L | Daphnia | 48 hours |
| | Acute EC50 0.33 to 0.37 ppm Fresh water | Daphnia - Water flea - Daphnia magna - <24 hours | 48 hours |
| | Acute LC50 0.59 mg/L | Daphnia | 96 hours |
| | Acute LC50 0.53 mg/L | Fish | 96 hours |
| | Acute LC50 1.67 mg/L | Fish | 96 hours |
| | Acute LC50 >0.01 mg/L | Fish | 96 hours |
| | Acute LC50 0.85 mg/L | Daphnia | 96 hours |
| | Acute LC50 550 to 1000 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - <=24 hours | 48 hours |
| | Acute LC50 530 to 580 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - FRY | 96 hours |
| | Acute LC50 160 to 190 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - <=24 hours | 48 hours |
| | Acute LC50 >10 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - FRY | 96 hours |
| | Acute LC50 4200 to 6000 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - FRY | 96 hours |
| | Acute LC50 4190 to 4370 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - FRY | 96 hours |
| | Acute LC50 1750 to 19900 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - <=24 hours | 48 hours |

12 . Ecological information

| | | |
|--|---|----------|
| Acute LC50 1730 to 3000 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - <=24 hours | 48 hours |
| Acute LC50 590 to 680 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - <=24 hours | 48 hours |
| Acute LC50 1730 to 3000 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - FRY | 96 hours |
| Acute LC50 1670 to 1840 ug/L Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - FRY | 96 hours |


Environmental effects : No known significant effects or critical hazards.

Other adverse effects : No known significant effects or critical hazards.

13 . Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14 . Transport information

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|------------------------|-----------|---|---------|-----|---|------------------------|
| DOT Classification | UN1760 | CORROSIVE LIQUID, N.O.S. (CONTAINS IMIDAZOLE) | 8 | III |  | - |

PG* : Packing group

15 . Regulatory information

United States

HCS Classification : Highly toxic material
Corrosive material
Carcinogen
Target organ effects

U.S. Federal regulations : TSCA 5(a)2 final significant rules: 2-Methoxyethanol
United States inventory (TSCA 8b): All components are listed or exempted.
TSCA 8(d) H and S data reporting: Chloroform : 1987
TSCA 12(b) annual export notification: 2-Methoxyethanol
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: Sulfur Dioxide; Chloroform
SARA 302/304 emergency planning and notification: Sulfur Dioxide; Chloroform
SARA 302/304/311/312 hazardous chemicals: Sulfur Dioxide; Iodine; Chloroform ;
2,2,2-Trifluoroethanol ; Imidazole; 2-Methoxyethanol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Sulfur Dioxide: Immediate (acute) health hazard, Delayed (chronic) health hazard;
Iodine: Immediate (acute) health hazard, Delayed (chronic) health hazard; Chloroform :
Immediate (acute) health hazard, Delayed (chronic) health hazard; 2,2,2-Trifluoroethanol :
Fire hazard, Immediate (acute) health hazard; Imidazole: Immediate (acute) health
hazard; 2-Methoxyethanol : Fire hazard, Immediate (acute) health hazard, Delayed
(chronic) health hazard

15 . Regulatory information**Clean Water Act (CWA) 307:** Chloroform**Clean Water Act (CWA) 311:** Chloroform**Clean Air Act (CAA) 112 accidental release prevention:** Sulfur Dioxide; Chloroform**Clean Air Act (CAA) 112 regulated flammable substances:** No products were found.**Clean Air Act (CAA) 112 regulated toxic substances:** Sulfur Dioxide; ChloroformDEA List I Chemicals
(Precursor Chemicals) : ListedDEA List II Chemicals
(Essential Chemicals) : Not listed**SARA 313**

| | <u>Product name</u> | <u>CAS number</u> | <u>Concentration</u> |
|---------------------------------|---------------------|-------------------|----------------------|
| Form R - Reporting requirements | 2-Methoxyethanol | 109-86-4 | 50 - 75 |
| | Chloroform | 67-66-3 | 10 - 30 |
| Supplier notification | 2-Methoxyethanol | 109-86-4 | 50 - 75 |
| | Chloroform | 67-66-3 | 10 - 30 |

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

Connecticut Carcinogen Reporting : None of the components are listed.

Connecticut Hazardous Material Survey : None of the components are listed.

Florida substances : None of the components are listed.

Illinois Chemical Safety Act : None of the components are listed.

Illinois Toxic Substances Disclosure to Employee Act : None of the components are listed.

Louisiana Spill : None of the components are listed.

Louisiana Reporting : None of the components are listed.

Massachusetts Spill : None of the components are listed.

Massachusetts Substances : The following components are listed: 2-Methoxyethanol ; Chloroform ; Iodine; Sulfur Dioxide

Minnesota Hazardous Substances : None of the components are listed.

Michigan Critical Material : None of the components are listed.

New Jersey Toxic Catastrophe Prevention Act : None of the components are listed.

New Jersey Spill : None of the components are listed.

New Jersey Hazardous Substances : The following components are listed: 2-Methoxyethanol ; Chloroform ; Iodine; Sulfur Dioxide

New York Toxic Chemical Release Reporting : None of the components are listed.

New York Acutely Hazardous Substances : The following components are listed: Chloroform; Sulfur dioxide

Pennsylvania RTK Hazardous Substances : The following components are listed: 2-Methoxyethanol ; Chloroform ; Iodine; Sulfur Dioxide

Rhode Island Hazardous Substances : None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

15 . Regulatory information

| <u>Ingredient name</u> | <u>Cancer</u> | <u>Reproductive</u> | <u>No significant risk level</u> | <u>Maximum acceptable dosage level</u> |
|------------------------|---------------|---------------------|---|--|
| 2-Methoxyethanol | No. | Yes. | No. | 63 µg/day (ingestion) |
| Chloroform | Yes. | No. | 20 µg/day (ingestion) 40 µg/day (inhalation) | No. |

Canada

WHMIS (Canada) : Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).
Class E: Corrosive material

Canadian lists : **CEPA Toxic substances:** The following components are listed: Sulphur dioxide
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: 2-Methoxyethanol; Chloroform;
Sulphur dioxide
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

EU regulations

Hazard symbol or symbols :



Risk phrases : R40- Limited evidence of a carcinogenic effect.
R60- May impair fertility.
R61- May cause harm to the unborn child.
R20/21/22- Also harmful by inhalation, in contact with skin and if swallowed.
R48/20/22- Also harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R34- Causes burns.

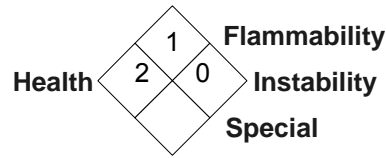
Safety phrases : S53- Avoid exposure - obtain special instructions before use.
S2- Keep out of the reach of children.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

International regulations

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

16 . Other information

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



Notice to reader

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