



## **MIRATAINE CBS MB**

These products would be made available to you from Solvay USA LLC strictly for use **in FDA regulated applications**, including use as cosmetic ingredients. These products contain materials which may not be listed in the Inventory of Chemical Substances developed under Section 8(b) of the Toxic Substances Control Act (TSCA). As such, any use (including resale) other than those regulated by the FDA would be a violation of the Act.

If you have any questions, or require additional information, please feel free to contact us at (609) 860-4000.

Sincerely,

Solvay USA LLC

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

- Trade name MIRATAINE CBS MB

**1.2 Relevant identified uses of the substance or mixture and uses advised against****Uses of the Substance / Mixture**

- Detergent
- Emulsifier
- Cosmetics, personal care products
- Washing and cleaning products (including solvent based products)

**Remarks**

- This product may rapidly contribute towards a highly hazardous environment within a confined space (e.g. Within ISO tanks, reactors, silos, etc.).
- Risk assessments should be conducted prior to handling this product / material

**1.3 Details of the supplier of the safety data sheet****Company**

CYTEC CANADA INC.  
9061 Garner Road, Niagara Falls,  
Ontario, Canada L2H 0Y2  
Tel:+1-905-356-9000

**1.4 Emergency telephone**

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): +1-800-424-9300 within the United States and Canada, or +1-703-527-3887 for international collect calls.

**SECTION 2: Hazards identification**

Although WHMIS has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects

**2.1 Classification of the substance or mixture****Hazardous Products Regulations (WHMIS 2015)**

Serious eye damage, Category 1

H318: Causes serious eye damage.

**2.2 Label elements****Hazardous Products Regulations (WHMIS 2015)****Pictogram****Signal Word**

- Danger

**Hazard Statements**

- H318 Causes serious eye damage.

**Precautionary Statements**Prevention

- P280 Wear eye protection/ face protection.

Response

- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

**2.3 Other hazards which do not result in classification**

- H401: Toxic to aquatic life.
- H411: Toxic to aquatic life with long lasting effects.

**SECTION 3: Composition/information on ingredients****3.1 Substance**

- Not applicable, this product is a mixture.

**3.2 Mixture**

- Chemical nature Aqueous surfactant solution.

**WHMIS Hazardous Ingredients and Impurities**

Chemical name	Identification number CAS-No.	Concentration [% wt/wt or V/V]
Cocamidopropyl Hydroxy Sultaine	70851-08-0	>= 30 - < 40
Sodium (±)-2,3-dihydroxypropanesulphonate	35396-47-5	>= 1 - < 5
Sodium hydroxypropane disulfonate		>= 1 - < 5
Cocamidopropyl Dimethylamine	68140-01-2	>= 0.3 - < 0.5

**WHMIS Non Hazardous Ingredients and Impurities**

Chemical name	Identification number CAS-No.	Concentration [% wt/wt or V/V]
Water/Inerts	*****	< 60

**SECTION 4: First aid measures****4.1 Description of first-aid measures****General advice**

- Plan first aid action before beginning work with this product.
- First responder needs to protect himself.
- Rescuers should wear PPE during rescue and decontamination of victims.
- Do not leave the victim unattended until the arrival of medical responders.
- Show this material safety data sheet to the doctor in attendance.
- Place affected apparel in a sealed bag for subsequent decontamination.

**In case of inhalation**

- Move to fresh air.
- Keep at rest.
- Consult a physician if necessary.

**In case of skin contact**

- Take off contaminated clothing and shoes immediately.
- Wash off immediately with soap and plenty of water.
- Use a mild soap if available.
- Get medical attention immediately if symptoms occur.

**In case of eye contact**

- Rinse immediately with plenty of water, also under the eyelids.
- Take victim immediately to hospital.
- Continue rinsing eyes during transport to hospital.

**In case of ingestion**

- Do not induce vomiting without medical advice.
- Rinse mouth with water.
- Do not give anything to drink.
- Keep at rest.
- Consult a physician if necessary.

**4.2 Most important symptoms and effects, both acute and delayed**

- no data available

**4.3 Indication of any immediate medical attention and special treatment needed****Notes to physician**

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

- Extinguishing media - small fires
- Water spray

- Carbon dioxide (CO<sub>2</sub>)
- Multipurpose powders
- Alcohol-Resistant Fluorine Free Foams
  
- Extinguishing media - large fires
- Water spray
- Multipurpose powders
- Alcohol-Resistant Fluorine Free Foams

**Unsuitable extinguishing media**

- Do not use a solid water stream as it may scatter and spread fire.

**5.2 Special hazards arising from the substance or mixture****Specific hazards during fire fighting**

- The pressure in sealed containers can increase under the influence of heat.
- Hazardous decomposition products formed under fire conditions.  
(following evaporation of water)
- High concentrations of toxic or harmful products may remain in the residual liquid once the fire has been extinguished.

**Hazardous combustion products:**

- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Nitrogen oxides (NO<sub>x</sub>)
- Sulfur oxides

**5.3 Advice for firefighters****Special protective equipment for fire-fighters**

- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.
- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

**Specific fire fighting methods**

- Stay upwind.
- Fight fire with normal precautions from a reasonable distance.
- Do not use a solid water stream as it may scatter and spread fire.
- Cool down the containers / equipment exposed to heat with a water spray. Ensure that there is NO direct contact between the water and the product.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Further information**

- Evacuate personnel to safe areas.
- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- Never approach containers which have been exposed to fire, without cooling them sufficiently.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

- Avoid inhalation, ingestion and contact with skin and eyes.
- Wear chemical resistant personal protective equipment
- Wear suitable gloves.
- Wear suitable protective clothing.
  
- Wear as appropriate:
  - Faceshield or an appropriate full face protection.
  - Tightly fitting safety goggles
  - Complete suit protecting against chemicals
  
- In the case of dust or aerosol formation use respirator with an approved filter.
- In the case of vapor formation use a respirator with an approved filter.
  
- Stop leak if safe to do so.
  
- If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire service).
- Isolate spill or leak area in a radius of at least 50 meters.
  
- For further information refer to section 8 "Exposure controls / personal protection."

**6.2 Environmental precautions**

- Prevent further leakage or spillage if safe to do so.
- Contain the spilled material by diking.
- The product should not be allowed to enter drains, water courses or the soil.
  
- Local authorities should be advised if significant spillages cannot be contained.
- If the product contaminates rivers and lakes or drains inform respective authorities.
- If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal.

**6.3 Methods and materials for containment and cleaning up**

- Stop leak if safe to do so.
- Dam up with sand or inert earth (do not use combustible materials).
  
- Soak up with inert absorbent material.
- Shovel or sweep up.
- Keep in suitable, closed containers for disposal.
- Never return spills in original containers for re-use.
  
- Wash nonrecoverable remainder with large amounts of water.
- Clean contaminated surface thoroughly.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.
  
- Dispose of in accordance with local regulations.

**Additional advice**

- Material can create slippery conditions.

**6.4 Reference to other sections**

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

- Handle in accordance with good industrial hygiene and safety practice.
- Risk assessments, along with appropriate identification and implementation of the corresponding risk controls, are to be conducted by competent person(s) on the intended work processes involving this product.
- This product may rapidly contribute towards a highly hazardous environment within a confined space (e.g. Within ISO tanks, reactors, silos, etc.).
- The product must only be handled by specifically trained employees.
- Advice on safe handling
  - If dust production may be expected from further processing, handling or by other means:
    - Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
    - Provide for appropriate exhaust ventilation and dust collection at machinery.
    - Dust must be extracted directly at the point of origin.
    - Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
  - Any anticipated splash and/or aerosol generation should be contained using suitable engineering controls.
  - Wear personal protective equipment.
  - Wear suitable protective clothing.
  - Avoid inhalation, ingestion and contact with skin and eyes.
  - For personal protection see section 8.

**Hygiene measures**

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
  - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
  - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
  - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.
- The user is responsible for monitoring the working environment in accordance with local laws and regulations.
- The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Air sampling and / or biological monitoring of the substances shown in Section 8.1 are to be conducted using methods accepted by local competent authorities responsible for workplace safety and health.

**7.2 Conditions for safe storage, including any incompatibilities**

**Technical measures/Storage conditions**

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Keep in a contained area
- The floor of the storage area should be impermeable and designed to form a water-tight basin.
- Keep locked up or in an area accessible only to qualified or authorized persons.
- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer
- Do not freeze.
- Keep away from: Hazardous reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity").

**Requirements for storage rooms and vessels**

- Do not freeze.

**7.3 Specific end use(s)**

- no data available

**SECTION 8: Exposure controls/personal protection**

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

**8.1 Control parameters**

- Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

### Control measures

#### **Engineering measures**

- Risk assessments, along with appropriate identification and implementation of the corresponding risk controls, are to be conducted by competent person(s) on the intended work processes involving this product.
- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :
  - Facilities and equipment easily cleanable.
  - Enclosure and / or isolation of emission source.
  - Effective exhaust ventilation system
  - Extract at emission point.
  - Ensure adequate ventilation.
  - Ensure that extracted air cannot be returned to the workplace through the ventilation system.
- Any anticipated splash and/or aerosol generation should be contained using suitable engineering controls.
- If dust production may be expected from further processing, handling or by other means:
  - Dust must be extracted directly at the point of origin.
  - Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

### Individual protection measures

#### **Respiratory protection**

- This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.
- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

#### **Hand protection**

- Where there is a risk of contact with hands, use appropriate gloves
- Gloves must be inspected prior to use.
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

#### **Suitable material**

- Nitrile rubber
- Neoprene
- PVC
- butyl-rubber

#### **Eye protection**

- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
- Eye contact should be prevented through the use of:

- Tightly fitting safety goggles
- Faceshield or an appropriate full face protection.

**Skin and body protection**

- Lightweight protective clothing
- Footwear protecting against chemicals
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
  - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
  - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
  - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.
- The user is responsible for monitoring the working environment in accordance with local laws and regulations.
- The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Air sampling and / or biological monitoring of the substances shown in Section 8.1 are to be conducted using methods accepted by local competent authorities responsible for workplace safety and health.

**Protective measures**

- Emergency equipment immediately accessible, with instructions for use.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.
- The protective equipment must be selected in accordance with current local regulations and in cooperation with the supplier of the protective equipment.

**SECTION 9: Physical and chemical properties**

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

**9.1 Information on basic physical and chemical properties**

<b><u>Physical state</u></b>	liquid (68 °F (20 °C))
<b><u>Form</u></b>	slightly viscous
<b><u>Color</u></b>	colorless to yellow.
<b><u>Odor</u></b>	fruity
<b><u>Odor Threshold</u></b>	No data available
<b><u>Melting point/freezing point</u></b>	<b><u>Freezing point:</u></b> < 32 °F (0 °C)
<b><u>Initial boiling point and boiling range</u></b>	<b><u>Boiling point/boiling range:</u></b> ca. 212 °F (100 °C)

<b><u>Flammability (solid, gas)</u></b>	No data available
<b><u>Flammability (liquids)</u></b>	No data available
<b><u>Flammability / Explosive limit</u></b>	No data available
<b><u>Flash point</u></b>	Not applicable, aqueous liquid for which the organic components have flash point > 100 °C / 212°F, Structure-activity relationship (SAR) Flammability class: Will burn
<b><u>Autoignition temperature</u></b>	No data available
<b><u>Decomposition temperature</u></b>	No data available
<b><u>pH</u></b>	7.5 - 8.5 ( 100 %) ( 77 °F (25 °C)) (undiluted)
<b><u>Viscosity</u></b>	No data available
<b><u>Solubility</u></b>	<b><u>Water solubility:</u></b> soluble  <b><u>Solubility in other solvents:</u></b> water miscible solvents: soluble  common organic solvents: insoluble  common organic solvents: partly soluble
<b><u>Partition coefficient: n-octanol/water</u></b>	No data available
<b><u>Vapor pressure</u></b>	No data available
<b><u>Density</u></b>	1.09 g/cm <sup>3</sup> ( 68 °F (20 °C))
<b><u>Relative density</u></b>	No data available
<b><u>Relative vapor density</u></b>	No data available
<b><u>Particle characteristics</u></b>	No data available
<b><u>Evaporation rate (Butylacetate = 1)</u></b>	No data available
<b>9.2 Other information</b>	
<b><u>Oxidizing properties</u></b>	Not considered as oxidizing., Structure-activity relationship (SAR)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

- Stable at normal ambient temperature and pressure.

### 10.2 Chemical stability

- Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.
- Hazardous polymerization does not occur.

**10.4 Conditions to avoid**

- Keep away from open flames, hot surfaces and sources of ignition.
- Avoid excessive heat for prolonged periods of time.

**10.5 Incompatible materials**

- Strong oxidizing agents
- Strong reducing agents
- Strong acids
- Strong bases

**10.6 Hazardous decomposition products**

- On combustion or on thermal decomposition (pyrolysis), releases:
- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
- Nitrogen oxides (NO<sub>x</sub>)
- Sulfur oxides

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity****Acute oral toxicity**

Cocamidopropyl Hydroxy Sultaine	LD50 : 2,950 mg/kg - Rat , male and female Method: OECD Test Guideline 401 By analogy tested on C8-C18 Unpublished reports Gavage May be harmful if swallowed.
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**Acute inhalation toxicity**

Cocamidopropyl Hydroxy Sultaine	No data available
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**Acute dermal toxicity**

Cocamidopropyl Hydroxy Sultaine	LD50 : > 2,000 mg/kg - Rat , male and female Method: OECD Test Guideline 402 By analogy tested on C8-C18 Semioclusive No mortality observed at this dose. Unpublished internal reports
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**Acute toxicity (other routes of administration)**

Cocamidopropyl Hydroxy Sultaine	No data available
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**Skin corrosion/irritation**

Rabbit  
 No skin irritation  
 Method: OECD Test Guideline 404  
 By analogy  
 Semiocclusive  
 Unpublished reports

**Serious eye damage/eye irritation**

Cocamidopropyl Hydroxy Sultaine

Rabbit  
 Irreversible effects on the eye  
 Method: OECD Test Guideline 405  
 By analogy  
 tested on C8-C18  
 Unpublished reports

**Respiratory or skin sensitization**

Maximization Test - Guinea pig  
 Does not cause skin sensitization.  
 Method: OECD Test Guideline 406  
 By analogy  
 Unpublished reports

**Mutagenicity****Genotoxicity in vitro**

Cocamidopropyl Hydroxy Sultaine

Ames test  
 with and without metabolic activation

negative  
 Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
 By analogy  
 tested on C8-C18  
 Unpublished reports

Chromosome aberration test in vitro  
 Strain: Human lymphocytes  
 with and without metabolic activation

negative  
 Method: OECD Test Guideline 473  
 By analogy  
 tested on C8-C18  
 Unpublished internal reports

Gene mutation assays in mammalian cells.  
 Strain: mouse lymphoma cells  
 with and without metabolic activation

negative  
 Method: OECD Test Guideline 476  
 By analogy  
 tested on C8-C18  
 Unpublished internal reports

**Genotoxicity in vivo**

Cocamidopropyl Hydroxy Sultaine In vivo micronucleus test - Rat  
male  
Oral  
Method: according to a standardized method

negative  
By analogy  
tested on C8-C18  
Gavage  
Unpublished internal reports

**Carcinogenicity**

Cocamidopropyl Hydroxy Sultaine No data available

**Toxicity for reproduction and development****Toxicity to reproduction / fertility**

Cocamidopropyl Hydroxy Sultaine Reproduction / developmental toxicity screening test - Rat, male and female, Oral  
Fertility NOEL: 300 mg/kg  
Method: OECD Test Guideline 422  
By analogy, tested on C8-C18, Gavage, No toxicity to reproduction, Unpublished internal reports

**Developmental Toxicity/Teratogenicity**

Cocamidopropyl Hydroxy Sultaine Pre-natal - Rat, Oral  
General Toxicity Maternal NOAEL: 66.7 mg/kg  
Teratogenicity NOAEL:600mg/kg  
Embryo-fetal toxicity. NOAEL: 600 mg/kg  
Method: OECD Test Guideline 414  
By analogy, tested on C8-C18, Gavage, Unpublished internal reports, The product is not considered to be toxic for development.

**STOT****STOT-single exposure**

Cocamidopropyl Hydroxy Sultaine The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria., internal evaluation  
By analogy

**STOT-repeated exposure**

Cocamidopropyl Hydroxy Sultaine The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria., internal evaluation  
By analogy, tested on C8-C18

Cocamidopropyl Hydroxy Sultaine Oral 90-day - Rat , male and female  
NOAEL: 600 mg/kg  
Method: OECD Test Guideline 408  
By analogy  
Gavage  
tested on C8-C18  
Unpublished internal reports

**Experience with human exposure**

No data available

**Aspiration toxicity**

No data available

**SECTION 12: Ecological information****12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**

Cocamidopropyl Hydroxy Sultaine

LC50 - 96 h : 2.1 - 2.66 mg/l - Pimephales promelas (fathead minnow)  
static test  
Analytical monitoring: no

Method: OECD Test Guideline 203  
category approach  
Toxic to fish.  
tested on C8-C18  
tested on C12-C18  
Unpublished internal reports

LC50 - 96 h : > 0.23 mg/l - Fish: Scophthalmus maximus  
semi-static test  
Analytical monitoring: no

Method: OSPARCOM Guidelines (1995)  
Marine species  
By analogy  
tested on C8-C18  
Unpublished internal reports

**Acute toxicity to daphnia and other aquatic invertebrates**

Cocamidopropyl Hydroxy Sultaine

EC50 - 48 h : 4 mg/l - Daphnia magna (Water flea)  
static test  
Analytical monitoring: no  
Method: Directive 67/548/EEC, Annex V, C.2.  
By analogy  
Toxic to aquatic invertebrates.  
tested on C12-C18  
Unpublished internal reports

EC50 - 48 h : 5.6 mg/l - Crustacean: Acartia tonsa  
static test  
Analytical monitoring: no  
Method: according to a standardized method  
Marine species  
By analogy  
tested on C8-C18  
Unpublished internal reports

**Toxicity to aquatic plants**

Cocamidopropyl Hydroxy Sultaine

ErC50 - 72 h : 2.26 mg/l - Skeletonema costatum (marine diatom)  
static test  
Analytical monitoring: no  
Method: ISO 10253  
Marine species  
By analogy  
Toxic to algae.  
tested on C8-C18  
Unpublished internal reports

NOEC - 72 h : 0.76 mg/l - Skeletonema costatum (marine diatom)  
 static test  
 Analytical monitoring: no  
 Method: ISO 10253  
 Marine species  
 By analogy  
 Harmful to algae with long lasting effects.  
 tested on C8-C18  
 Unpublished internal reports

**Toxicity to microorganisms**

Cocamidopropyl Hydroxy Sultaine

NOEC - 3 h : >= 1,000 mg/l - activated sludge  
 static test  
 Analytical monitoring: no  
 Method: OECD Test Guideline 209  
 By analogy  
 tested on C8-C18  
 Unpublished internal reports

**Chronic toxicity to fish**

Cocamidopropyl Hydroxy Sultaine

EC10: 0.075 mg/l - 32 d - Pimephales promelas (fathead minnow)  
 flow-through test  
 Analytical monitoring: yes  
 Method: OECD Test Guideline 210  
 By analogy  
 tested on C8-C18  
 Unpublished reports

**Chronic toxicity to daphnia and other aquatic invertebrates**

Cocamidopropyl Hydroxy Sultaine

NOEC: 1.05 mg/l - 21 d - Daphnia magna (Water flea)  
 semi-static test  
 Analytical monitoring: yes  
 Method: OECD Test Guideline 211  
 By analogy  
 No adverse chronic effect observed up to and including the threshold of 1 mg / L.  
 tested on C8-C18  
 Unpublished internal reports

**Sediment compartment****Toxicity to benthic organisms**

Cocamidopropyl Hydroxy Sultaine

NOEC: 697.3 mg/kg dry weight (d.w.)Exposure duration: 10 Days  
 Species: Corophium volutator  
 Method: OSPARCOM Guidelines (2005)  
 Marine species, By analogy, tested on C8-C18, Unpublished internal reports

**12.2 Persistence and degradability****Abiotic degradation**

No data available

**Physical- and photo-chemical elimination**

No data available

**Biodegradation****Biodegradability**

Cocamidopropyl Hydroxy Sultaine

Ready biodegradability study:

The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability  
 Expert judgment and weight of evidence determination.  
 tested on C12  
 tested on C12-C18  
 tested on C8-C18  
 Unpublished internal reports

Ultimate aerobic biodegradability  
 Method: OECD Test Guideline 306  
 57 % - 28 d  
 Theoretical carbon dioxide production  
 Inoculum: Sea water  
 Conc. in standard unit mg / l: 8.29 mg/l  
 By analogy  
 tested on C8-C18  
 Unpublished internal reports

### **Degradability assessment**

Cocamidopropyl Hydroxy Sultaine

The product is considered to be rapidly degradable in the environment

### **12.3 Bioaccumulative potential**

#### **Partition coefficient: n-octanol/water**

Cocamidopropyl Hydroxy Sultaine

Not potentially bioaccumulable

#### **Bioconcentration factor (BCF)**

No data available

### **12.4 Mobility in soil**

#### **Adsorption potential (Koc)**

No data available

#### **Known distribution to environmental compartments**

No data available

### **12.5 Results of PBT and vPvB assessment**

Cocamidopropyl Hydroxy Sultaine

This substance is not considered to be persistent, bioaccumulating, and toxic (PBT).  
 This substance is not considered to be very persistent and very bioaccumulating (vPvB).

### **12.6 Other adverse effects**

#### **Ecotoxicity assessment**

#### **Short-term (acute) aquatic hazard**

Cocamidopropyl Hydroxy Sultaine

Toxic to aquatic life.

#### **Long-term (chronic) aquatic hazard**

Cocamidopropyl Hydroxy Sultaine

Toxic to aquatic life with long lasting effects.

## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product Disposal**

- Dispose of in accordance with local regulations.

- Waste Management options should first consider possible re-use or recycling opportunities. Some provinces have active "Waste Exchange" networks for re-use and recycling of wastes. Contact your local waste management companies to explore available options. All waste management activities must obey local, provincial and federal regulations. Possible disposal methods include the following:
- Can be incinerated, when in compliance with local regulations.

**Prohibition**

- Do not discharge directly into the environment.
- Do not dispose of with domestic refuse.

**Advice on cleaning and disposal of packaging**

- Empty remaining contents.
- Clean using steam.
- Monitor the residual vapors.
- Dispose of rinse water in accordance with local and national regulations.
- Containers that cannot be cleaned must be treated as waste.
- Dispose of contents/ container to an approved waste disposal plant.
- Dispose of in accordance with local regulations.
- Where possible recycling is preferred to disposal or incineration.
- The recycled material must be completely dry and free of pollutants.

**Prohibition**

- Do NOT dispose of untreated packaging with industrial waste.
- Do not dispose of with domestic refuse.

**SECTION 14: Transport information**

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification. The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

**TDG**

<b>14.1 UN number</b>	UN 3082
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amides, coco, N-[3-(dimethylamino)propyl], alkylation products with sodium 3-chloro-2-hydroxypropanesulfonate)
<b>14.3 Transport hazard class</b>	9
<b>Label(s)</b>	9
<b>14.4 Packing group</b>	
<b>Packing group</b>	III
<b>ERG No</b>	171
<b>14.5 Environmental hazards</b>	YES
<b>Marine pollutant</b>	Marine Pollutant

## MIRATAINE CBS MB

Revision Date 12/19/2023

**49 CFR**

<b>14.1 UN number</b>	UN 3082
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amides, coco, N-[3-(dimethylamino)propyl], alkylation products with sodium 3-chloro-2-hydroxypropanesulfonate)
<b>14.3 Transport hazard class</b>	9
Label(s)	9
<b>14.4 Packing group</b>	III
Packing group	III
ERG No	171
<b>14.5 Environmental hazards</b>	YES
<b>Marine pollutant</b>	

**NOM**

<b>14.1 UN number</b>	UN 3082
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amides, coco, N-[3-(dimethylamino)propyl], alkylation products with sodium 3-chloro-2-hydroxypropanesulfonate)
<b>14.3 Transport hazard class</b>	9
Label(s)	9
<b>14.4 Packing group</b>	III
Packing group	III
ERG No	171
<b>14.5 Environmental hazards</b>	YES
<b>Marine pollutant</b>	

**IMDG**

<b>14.1 UN number</b>	UN 3082
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amides, coco, N-[3-(dimethylamino)propyl], alkylation products with sodium 3-chloro-2-hydroxypropanesulfonate)
IMDG Code segregation group	Not Relevant
<b>14.3 Transport hazard class</b>	9
Label(s)	9
<b>14.4 Packing group</b>	III
Packing group	III
<b>14.5 Environmental hazards</b>	YES
<b>Marine pollutant</b>	

**14.6 Special precautions for user**

EmS F-A , S-F

For personal protection see section 8.

**14.7 Transport in bulk vessels according to IMO instruments**

No data available

**IATA****14.1 UN number** UN 3082**14.2 Proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Amides, coco, N-[3-(dimethylamino)propyl], alkylation products with sodium 3-chloro-2-hydroxypropanesulfonate)**14.3 Transport hazard class** 9  
Label(s): 9**14.4 Packing group** III  
Packing groupPacking instruction (cargo aircraft) 964  
Max net qty / pkg 450.00 L  
Packing instruction (passenger aircraft) 964  
Max net qty / pkg 450.00 L**14.5 Environmental hazards** YES**14.6 Special precautions for user**

For personal protection see section 8.

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

**SECTION 15: Regulatory information****15.1 Notification status**

Inventory Information	Status
United States TSCA Inventory	- This product is regulated under the United States Food and Drug Act (FDA).
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australian Inventory of Industrial Chemicals (AIIC)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- One or more components not listed on inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand.
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Syensqo legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.
Korea. Act on Registration and Evaluation of Chemicals	- When purchased from a Syensqo legal entity based in Korea, this product is compliant with "Act on Registration and Evaluation of Chemicals" (AREC or K-REACH, Article 10) as all its components are either excluded, exempt, and/or (pre)registered. When purchased from a legal entity outside of Korea, please contact your local representative for additional information.

**15.2 National Regulations****Canada. CEPA 1999 Significant New Activity (SNAc) List:**

- No substances are subject to a Significant New Activity Notification.

**SECTION 16: Other information****Revision Date:**

12/19/2023

**NFPA (National Fire Protection Association) - Classification**

Health	2 moderate
Flammability	1 slight
Instability or Reactivity	0 minimal

**HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification**

Health	2 moderate
Flammability	1 slight
Reactivity	0 minimal

PPE

Determined by User; dependent on local conditions

**Further information**

- Distribute new edition to clients

**Key or legend to abbreviations and acronyms used in the safety data sheet**

- ACGIH: American Conference of Governmental Industrial Hygienists
  - OSHA: Occupational Safety and Health Administration
  - NTP: National Toxicology Program
  - IARC: International Agency for Research on Cancer
  - NIOSH: National Institute for Occupational Safety and Health
  - ADR: European Agreement on International Carriage of Dangerous Goods by Road.
  - ADN: European Agreement on the International Carriage of Dangerous Goods by Inland
- Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
  - IATA: International Air Transport Association.
  - ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.
  - IMDG: International Maritime Dangerous Goods.
  - TWA: Time weighted average
  - ATE: Estimated value of acute toxicity
  - EC: European Community number
  - CAS: Chemical Abstracts Service.
  - LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
  - LC50: Substance concentration causing 50% (half) death in the test animals group.
  - EC50: Effective Concentration of the substance causing the maximum of 50%.
  - PBT: Persistent, Bioaccumulative and Toxic substance.
  - vPvB: Very Persistent and Very Bioaccumulative.
  - SEA: Classification, labeling, packaging regulation
  - DNEL: Derived No Effect Level
  - PNEC: Predicted No Effect Concentration
  - STOT: Specific Target Organ Toxicity

**Not all acronyms listed above are referenced in this SDS.**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.