



# SAFETY DATA SHEET

## DOW CHEMICAL THAILAND LTD

**Product name:** EcoSense™ 1200 Surfactant

**Issue Date:** 22.07.2021

**Print Date:** 14.02.2023

DOW CHEMICAL THAILAND LTD encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

---

## 1. PRODUCT AND COMPANY IDENTIFICATION

---

**Product name:** EcoSense™ 1200 Surfactant

### Recommended use of the chemical and restrictions on use

**Identified uses:** Multi-purpose surfactant. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

### COMPANY IDENTIFICATION

DOW CHEMICAL THAILAND LTD  
99/1 BJC 2 BUILDING,  
SOI SAENGCHAN-RUBIA,  
SUKHUMVIT 42 ROAD, PRAKANONG, KLONGTOEY,  
BANGKOK 10110  
THAILAND

**Customer Information Number:**

(66)2-3657000  
SDSQuestion@dow.com

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** (66)38-925-400

**Local Emergency Contact:** 038-925-400

---

## 2. HAZARDS IDENTIFICATION

---

### GHS Classification

Skin corrosion/irritation - Category 2  
Serious eye damage/eye irritation - Category 1  
Short-term (acute) aquatic hazard - Category 2

### GHS label elements

**Hazard pictograms**



Signal word: **DANGER!**

**Hazard statements**

Causes skin irritation.  
Causes serious eye damage.  
Toxic to aquatic life.

**Precautionary statements****Prevention**

Wash skin thoroughly after handling.  
Avoid release to the environment.  
Wear protective gloves/ eye protection/ face protection.

**Response**

IF ON SKIN: Wash with plenty of soap and water.  
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 or doctor/ physician.  
If skin irritation occurs: Get medical advice/ attention.  
Take off contaminated clothing and wash before reuse.

**Disposal**

Dispose of contents and/or container to an approved waste disposal plant.

**Other hazards**

No data available

---

---

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

---

This product is a mixture.

<b>Component</b>	<b>CASRN</b>	<b>Concentration</b>
D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides	110615-47-9	<= 50.0 %
Water	7732-18-5	<= 50.0 %

---

## 4. FIRST AID MEASURES

---

### Description of first aid measures

#### General advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** No emergency medical treatment necessary.

**Skin contact:** Wash off with plenty of water. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** No emergency medical treatment necessary.

#### Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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

**Notes to physician:** Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

---

## 5. FIREFIGHTING MEASURES

---

### Extinguishing media

**Suitable extinguishing media:** To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam..

**Unsuitable extinguishing media:** No data available

### Special hazards arising from the substance or mixture

**Hazardous combustion products:** Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds.. Combustion products may include and are not limited to:.. Carbon monoxide.. Carbon dioxide..

**Unusual Fire and Explosion Hazards:** This material will not burn until the water has evaporated. Residue can burn..

### Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry.. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam..

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves).. If protective equipment is not available or not used, fight fire from a protected location or safe distance..

---

## 6. ACCIDENTAL RELEASE MEASURES

---

**Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause a slipping hazard. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

---

## 7. HANDLING AND STORAGE

---

**Precautions for safe handling:** Wash thoroughly after handling. Avoid breathing vapor. Use with adequate ventilation. Keep container closed. Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Do not get in eyes. Good housekeeping and controlling of dusts are necessary for safe handling of product. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Store in a cool, dry place. Avoid temperatures above 200°C (392°F)

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

### Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

### Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

### Individual protection measures

**Eye/face protection:** Use chemical goggles.

#### Skin protection

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl

alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Avoid gloves made of: Polyvinyl alcohol ("PVA"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Under intended handling conditions, no respiratory protection should be needed.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

---

### Appearance

Physical state	liquid
Color	Yellow
Odor	Odorless
Odor Threshold	No test data available
pH	11.5 - 12.5 <i>Literature</i>
Melting point/range	Not applicable to liquids
Freezing point	No test data available
Boiling point (760 mmHg)	No test data available
Flash point	<b>closed cup</b> >100 °C <i>Literature</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not Applicable
Flammability (liquids)	Not expected to be a static-accumulating flammable liquid.
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	No test data available
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1.08 <i>Literature</i>
Water solubility	soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	> 300 cSt at 20 °C <i>Literature</i>
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No test data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

---

## 10. STABILITY AND REACTIVITY

---

**Reactivity:** No data available

**Chemical stability:** Stable.

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** Some components of this product can decompose at elevated temperatures.

**Incompatible materials:** Avoid contact with: Strong acids. Strong bases. Strong oxidizers. Strong reducing agents.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials..

---

## 11. TOXICOLOGICAL INFORMATION

---

*Toxicological information appears in this section when such data is available.*

**Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)**

**Acute oral toxicity**

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

Typical for this family of materials.

LD50, Rat, > 5,000 mg/kg

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Rat, male and female, > 5,000 mg/kg

**Acute dermal toxicity**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Typical for this family of materials.

LD50, Rat, > 5,000 mg/kg

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

LD50, Rabbit, male and female, > 2,000 mg/kg OECD Test Guideline 402 No deaths occurred at this concentration.

**Acute inhalation toxicity**

Vapors are primarily water; single exposure is not likely to be hazardous.

As product: The LC50 has not been determined.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Prolonged excessive exposure may cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

The LC50 has not been determined.

**Skin corrosion/irritation**

Based on product testing:

Brief contact may cause slight skin irritation with local redness.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Brief contact may cause moderate skin irritation with local redness.

**Serious eye damage/eye irritation**

Based on product testing:

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

**Sensitization**

For this family of materials:

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

Relevant data not available.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Based on physical properties, not likely to be an aspiration hazard.

**Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)**

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

For this family of materials:

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

**Carcinogenicity**

No relevant data found.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Relevant data not available.

**Teratogenicity**

For this family of materials: Did not cause birth defects or any other fetal effects in laboratory animals.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

Did not cause birth defects or any other fetal effects in laboratory animals.

Did not cause birth defects or any other fetal effects in laboratory animals.

**Reproductive toxicity**

For this family of materials: In animal studies, did not interfere with reproduction.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

**Mutagenicity**

For this family of materials: In vitro genetic toxicity studies were negative.

**Information for components:**

**D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.



---

## 12. ECOLOGICAL INFORMATION

---

*Ecotoxicological information appears in this section when such data is available.*

### Ecotoxicity

#### D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides

##### **Acute toxicity to fish**

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50, Zebra fish (Danio/Brachydanio rerio), semi-static test, 96 Hour, 5.9 mg/l

##### **Acute toxicity to aquatic invertebrates**

EC50, Daphnia (water flea), Static, 48 Hour, 14 mg/l

##### **Acute toxicity to algae/aquatic plants**

ErC50, Desmodesmus subspicatus (green algae), Static, 72 Hour, Growth rate, 25 mg/l

### Persistence and degradability

#### D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

**Biodegradation:** > 60 %

**Exposure time:** 28 d

### Bioaccumulative potential

#### D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 1.72 Estimated.

### Mobility in Soil

#### D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides

No relevant data found.

### Results of PBT and vPvB assessment

#### D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

### Other adverse effects

#### D-Glucopyranose, Oligomeric, C10-16-Alkyl Glycosides

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

---

### 13. DISPOSAL CONSIDERATIONS

---

**Disposal methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Waste water treatment system. Recycler. Reclaimer. Incinerator or other thermal destruction device. Landfill.

---

### 14. TRANSPORT INFORMATION

---

**Classification for ROAD and Rail transport:**

Not regulated for transport

**Classification for SEA transport (IMO-IMDG):**

Not regulated for transport

**Transport in bulk  
according to Annex I or II  
of MARPOL 73/78 and the  
IBC or IGC Code**

Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

---

### 15. REGULATORY INFORMATION

---

**Emergency Decree on Controlling the Use of Volatile Substances B.E. 2533**

Not applicable

**Hazardous Substance Act B.E. 2535**

This product may subject restriction or prohibition under below authorities due to certain applications. For details, please refer to local regulations to decide if any actions (of notification, registration, and/or

license in accordance with the determined specific rules and procedure) are needed before business activity happen (production, import, export or to have it in possession for transport and/or storage).

Department of Agriculture

Not applicable

Department of Energy Business

Not applicable

Department of Livestock

Banned and/or restricted

Department of Industrial Works

Not applicable

Food and Drug Administration

Banned and/or restricted

Department of Fisheries

Not applicable

---

## **16. OTHER INFORMATION**

---

### **Revision**

Identification Number: 99029158 / A176 / Issue Date: 22.07.2021 / Version: 3.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

### **Full text of other abbreviations**

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature;

SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

DOW CHEMICAL THAILAND LTD urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

TH