

## SAFETY DATA SHEET - SDS

**Product :** Polysorbate 20

**Review :** 00

May 6th 2020

### 1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

<b>Product</b>	Polysorbate 20
<b>Internal identification code</b>	--
<b>Relevant recommended uses</b>	Industrial uses.
<b>Company</b>	Voyageur Soap & Candle Co. LTD
<b>Address</b>	Unit 14 - 19257 Enterprise Way, Surrey BC V3S 6J8
<b>Phone number</b>	1 (800) 758-7773
<b>Website</b>	www.voyageursoapandcandle.com
<b>Emergency Phone number</b>	1(800) 424-9300 CHEMTREC

### 2. HAZARDS IDENTIFICATION

**Classification** No classification is assigned according to OSHA HCS 2012.

**Label Elements**

- **Hazard Pictograms** Not applicable.
- **Signal Word** Not applicable.
- **Hazard Statements** Not applicable.
- **Precautionary Statements** Not applicable.

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

<b>Brand or Generic Chemical Name</b>	Sorbitan Monolaurate 20 EO
<b>Product Type</b>	Substance.
<b>Synonyms</b>	Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.; Polyoxyethylene sorbitan monolaurate; POLYSORBATE 20 (INCI Name).
<b>CAS Number</b>	9005-64-5.
<b>EINECS/NLP number</b>	500-018-3.
<b>Impurities which contribute to the classification of the substance</b>	There are no impurities which contribute to the classification of the substance.

### 4. FIRST-AID MEASURES

**Procedure in Case of:**

- **Ingestion** Seek prompt medical attention.  
Do not induce vomiting.  
Vomiting should only be induced by medical personnel.  
If vomiting occurs, keep the head lower than chest to avoid aspiration into the lungs.  
Never give anything by mouth to an unconscious or convulsing person.
- **Inhalation** Seek prompt medical attention.  
Remove victim to fresh air.  
If breathing is difficult, give oxygen.  
If not breathing, give artificial respiration.
- **Skin contact** Remove contaminated clothing and shoes. Wash affected areas with plenty of running water, preferably under a shower.  
Seek prompt medical attention.
- **Eye contact** Immediately flush with plenty of running water for at least 15 minutes, keeping eyelids open.  
Remove contact lenses if easy to do.  
Seek prompt medical attention.

**Most important symptoms/effects, acute and delayed**

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Ingestion - High levels caused diarrhea and other effects secondary to laxation. May cause intestinal obstruction.  
Inhalation - Due to the low vapor pressure, no significant health hazard from inhalation is likely to occur at normal room temperatures. Mist or vapors produced from elevated temperatures may cause irritation of the mucous membranes and in high levels may cause a chemical pneumonitis.  
Skin - Prolonged or repeated exposure may cause irritation of the skin by removing natural oils, causing redness and papular dermatitis.  
Eyes - May cause minimal to moderate conjunctival irritation.

**Information for doctor**

There is not known any specific antidote.  
Direct the treatment in accordance with the symptoms and clinical conditions of the patient.

### 5. FIRE-FIGHTING MEASURES

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**Extinguishing Media**

In case of fire, use:  
Water spray.  
Alcohol resistant foam.  
Carbon dioxide (CO<sub>2</sub>).  
Dry chemical powder.

**Specific Hazards**

Product is not flammable.  
In case of combustion it may generate carbon monoxide, besides CO<sub>2</sub>.

**Protective measures for fire-fighters**

Water jets should not be used directly on igniting products because it may disperse the material and intensify the fire.  
Self-contained breathing apparatus and protective clothing are required.  
Cool the intact fire-exposed containers with water spray and remove them.

**NFPA Rating**

- **Health** 1
- **Flammability** 1
- **Instability** 0
- **Special**

### 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures**

Isolate and signalize area.  
Keep heat and/or ignition sources away.  
Use personal protection equipment as indicated in Section 8, in order to avoid contact with spilled product.

**Environmental Precautions**

Prevent product from entering into soil and waterways.  
Notify the competent authorities if the product has run into drainage systems or watercourse or has contaminated the ground or vegetation.

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

Stop if possible.  
Contain and dike spilled product with earth or sand.  
Eliminate ignition or heat sources.  
Transfer to proper container.  
Collect remnants with an appropriate absorbent material.  
Wash the contaminated surface with water, which should be collected for disposal.

### 7. HANDLING AND STORAGE

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**Precautions for safe handling**

Use in a well-ventilated area.  
Avoid inhalation and contact with eyes, skin or clothing through proper protection.  
Emergency eyewashes and showers shall be located in accessible locations.  
Wash hands and face thoroughly after handling.  
Wash contaminated clothing before reuse.

**Conditions for safe storage**

Store in a covered and well-ventilated area, away from sunlight and sources of heat or open flames.  
Ensure that the storage location has adequate moisture, pressure and temperature.  
Keep containers tightly closed when not in use.  
The product can be stored, in liquid state, at temperatures between 20 and 50 °C, which is recommended maintain at inert gas atmosphere.

**Incompatibilities**

Avoid contact with:  
Strong oxidizing agents.

**Packaging Material**

Recommended:  
XLPE (crosslinking polyethylene).  
Stainless steel.  
Unsuitable:  
Zinc.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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**Control parameters**

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- **TLV-TWA (ACGIH)** 1,4-Dioxane: 20 ppm; 72 mg/m<sup>3</sup> [Skin][A3].  
Ethylene oxide: 1 ppm; 1.8 mg/m<sup>3</sup> [A2].  
Skin - Danger of cutaneous absorption.  
A2 - Suspected Human Carcinogen  
A3 - Confirmed animal carcinogen with unknown relevance to humans.
- **PEL-TWA (OSHA)** 1,4-Dioxane: 100 ppm; 360 mg/m<sup>3</sup> [Skin].  
Ethylene oxide: 1 ppm.  
Skin - Danger of cutaneous absorption.
- **TLV-STEL (ACGIH)** Not established.
- **LT(NR15)** Ethylene oxide: 39 ppm; 70 mg/m<sup>3</sup>.
- **Odor Threshold** Not available.
- **IDLH** 1,4-Dioxane: 500 ppm.  
Ethylene oxide: 800 ppm.
- **Biological Exposure Indices (ACGIH)** Not established.

**Engineering Control Measures** In closed environments, this product should be handled keeping proper exhaust (general diluter or local exhaust).

### Individual Protection Measures

- **Eye Protection** Side shields or wide vision safety goggles.
- **Skin Protection** PVC apron.  
It is recommended to adopt safety boots/shoes.
- **Hand Protection** Gloves made of:  
Rubber.  
PVC (Polyvinyl chloride).
- **Breathing equipment** In case of emergency or contact with high concentrations of the product, wear an air supplied mask or self contained breathing apparatus.  
It is recommended to wear face mask with organic vapors cartridge in case of exposure to vapors/aerosols.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	Liquid. Yellowish. Viscous.
<b>Odour and Odour threshold</b>	Soft odor.
<b>pH</b>	5.0 - 7.0 (5% solution w/w, 25 °C).
<b>Melting point/Freezing point</b>	Not available.
<b>Initial Boiling Point and Boiling Range</b>	> 149 °C (1.013 hPa).
<b>Flash point</b>	> 150 °C (open cup).
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapour pressure</b>	< 1.3 hPa (25 °C).
<b>Vapour density (air = 1)</b>	Not available.
<b>Relative density (water=1)</b>	1100 kg/m <sup>3</sup> (25 °C).
<b>Apparent density</b>	Not applicable.
<b>Solubility</b>	Soluble in water (20 °C for 1 hour / 0.5% concentration).
<b>Partition Coefficient n-octanol/water</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.

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**Viscosity** ca. 400 mPa.s (25 °C).

### 10. STABILITY AND REACTIVITY

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<b>Chemical stability</b>	Stable under normal conditions of use and storage.
<b>Reactivity</b>	No hazardous reactivity is expected.
<b>Possibility of Hazardous Reactions</b>	Not polymerize.
<b>Conditions to avoid</b>	High temperatures, ignition sources and prolonged exposure to the air.
<b>Incompatible materials</b>	Avoid contact with: Strong oxidizing agents.
<b>Hazardous decomposition products</b>	In case of combustion it may generate carbon monoxide, besides CO <sub>2</sub> .
<b>Considerations on the use of the product</b>	Gelling may occurs at temperatures lower than 20 °C.

### 11. TOXICOLOGICAL INFORMATION

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#### Acute Toxicity

- **Oral** LD50, rat: 36700 µL/kg.
- **Inhalation** Not available.
- **Dermal** Not available.

**Skin corrosion/irritation** Mild irritation (patch test, rabbit).

**Serious eye damage/eye irritation** Draize eye irritation score was an 5.3 out of a possible 110.

**Respiratory or skin sensitization** Not sensitizing to humans.

**Germ cell mutagenicity** Not available.

**Carcinogenicity** Oral studies showed no evidence for carcinogenicity by this route.

**Reproductive toxicity** The maternal LOAEL in rats was 5000 mg/kg/day (based upon a 14% decrease in weight gain) and the maternal NOAEL was 500 mg/kg/day.  
The developmental NOAEL was greater than 5000 mg/kg/day.

**Specific target organ toxicity - Single exposure** Not available.

**Specific target organ toxicity - Repeated exposure** Not available.

**Aspiration hazard** Not expected to be an aspiration hazard.

### 12. ECOLOGICAL INFORMATION

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**Ecotoxicity** The aquatic toxicity is not known. Based on similar products, it is not considered toxic to aquatic life.

**Persistence and Degradability** Expected to be biodegradable.

**Bioaccumulative Potential** It is not expected to bioaccumulate in the environment.

**Mobility in soil** Not available.

**Other Adverse Effects** Water hazard class 1: Slightly hazardous to water.

### 13. DISPOSAL CONSIDERATIONS

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#### Recommended methods of disposal

- **Product** The preferred options for disposal include reuse, recycling, co-processing, finding a use for a by-product, incineration or other thermal destruction process at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. Perform co-processing, incineration or other thermal destruction process at facilities capable of minimizing or reducing air pollution emissions.  
The disposal must comply with federal, state, and local laws and regulations in accordance with the environmental agencies.

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- **Product Remains** Same method as indicated for product.
- **Packaging** Do not cut or pierce the packaging, nor do hot work near them.  
Do not remove labels until the product has been fully removed and the packaging cleaned.  
The preferred options for disposal include reuse, recycling or reclamation at licensed facilities.  
All procedures must follow specific operation standards in order to reduce health, safety and environmental risks.  
The disposal must comply with local legislation and in accordance with standards from local environmental agencies.

### 14. TRANSPORT INFORMATION

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<b>Land Transport ANTT</b>	Product not classified as hazardous in accordance with Resolution 420/2004 - Transport Ministry.
• <b>UN number</b>	N/A
• <b>Proper Shipping Name</b>	Not classified.
• <b>Hazard Class</b>	Not classified.
• <b>Hazard Number</b>	Not classified.
• <b>Packaging Group</b>	Not classified.
<b>Maritime Transport IMDG</b>	Product not classified as hazardous in accordance with IMDG Code - 2012 Edition - IMO (International Maritime Organization).
• <b>UN number</b>	N/A
• <b>Proper Shipping Name</b>	Not classified.
• <b>IMDG Class</b>	Not classified.
• <b>Packaging Group</b>	Not classified.
• <b>EmS</b>	Not classified.
<b>Air Transport ICAO-TI and IATA-DGR</b>	Product not classified as hazardous in accordance with Dangerous Goods Regulations - 55th Edition - IATA (International Air Transport Association).
• <b>UN number</b>	N/A
• <b>Proper Shipping Name</b>	Not classified.
• <b>ICAO/IATA Class</b>	Not classified.
• <b>Label</b>	Not classified.
• <b>Packaging Group</b>	Not classified.
<b>Land Transportation ADR/RID (cross-border)</b>	Product not classified as hazardous in accordance with Dangerous Goods by Road - Applicable from 1st January 2011 - Unece (United Nations Economic Commission for Europe).
• <b>UN number</b>	N/A
• <b>Proper Shipping Name</b>	Not classified.
• <b>ADR/RID class</b>	Not classified.
• <b>Packaging Group</b>	Not classified.
• <b>Danger code (Kemler)</b>	Not classified.
• <b>Restriction Code</b>	Not classified.
<b>Land Transportation U.S DOT</b>	Product not classified as hazardous in accordance with U.S. DOT (United States Department of Transportation) - 49 CFR 172.101.
<b>Packaging Type</b>	Bulk and Non-bulk
<b>Proper Shipping Name</b>	Not classified.
<b>Hazard Class or Division</b>	Not classified.
<b>ID Number</b>	Not classified.
<b>Packaging Group</b>	Not classified.

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**Remarks** Not classified.

### 15. REGULATORY INFORMATION

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**Applicable standards**

Resolution 420 / 2004 – Transport Ministry.  
IMDG Code - 2012 Edition - IMO (International Maritime Organization).  
Dangerous Goods Regulations - 55th Edition - IATA (International Air Transport Association).  
Dangerous Goods by Road (ADR) – Available from January 1st, 2011 – Unece (United Nations Economic Commission for Europe).  
U.S.A Department of Transportation – DOT – 49 CFR 172.101.

**OSHA Hazard Communication Standard**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**SARA Title III - Sections 311 / 312 (40 CFR 370 Subparts B and C)**

Immediate (Acute) Health Hazard: No.  
Delayed (Chronic) Health Hazard: No.  
Fire Hazard: No.  
Sudden Release of Pressure Hazard: No.  
Reactive Hazard: No.

**SARA Title III - Section 313 (40 CFR 372.65)**

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

**SARA Title III - Section 302 (40 CFR 355 Appendix A)**

Ethylene oxide (CAS 75-21-8): 1 ppm. TPQ: 1000 lbs.

**CERCLA (40 CFR 302.4) / SARA 304**

1,4-Dioxane (CAS 123-91-1): 10 ppm. RQ: 100 lbs.  
Ethylene oxide (CAS 75-21-8): 1 ppm. RQ 10 lbs.  
Reportable Quantity (RQ) of this product is 10000000 pounds based upon 1,4-Dioxane / Ethylene oxide which yielded the lowest resultant RQ according to the following formula: CERCLA ingredient RQ/ % of that ingredient in the product.

**New Jersey Hazardous Substance List**

1,4-Dioxane: Substance# 0789 (Special Health Hazard Code: CA – Carcinogen; F3 – Flammable 3rd degree).  
Ethylene oxide: Substance# 0882 (Special Health Hazard Code: CA – Carcinogen; MU – Mutagen; TE – Teratogen; F4 – Flammable 4th degree; R3 – Reactive 3rd degree).

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act)**

WARNING! This product contains a chemical known to the State of California to cause cancer.  
- 1,4-Dioxane.  
- Ethylene oxide.  
WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.  
- Ethylene oxide.

**Pennsylvania Hazardous Substance List**

1,4-Dioxane (CAS 123-91-1) and Ethylene oxide (CAS 75-21-8): Listed also as an environmental hazard and as a special hazardous substance.

**Inventory Status**

United States & Puerto Rico – Toxic Substances Control Act (TSCA) Inventory: Yes  
Canada – Domestic Substances List (DSL): Yes  
Canada – Domestic Substances List (DSL): No  
Europe – European Inventory of Existing Commercial Chemical Substances (EINECS): No  
Europe – European List of Notified Chemical Substances (ELINCS): No  
Australia – Australian Inventory of Chemical Substances (AICS): Yes  
Philippines – Philippine Inventory of Chemicals and Chemical Substances (PICCS): Yes  
Japan – Inventory of Existing and New Chemical Substances (ENCS): Yes  
Korea – Existing Chemicals List (ECL): Yes  
China – Inventory of Existing Chemical Substances in China (IECSC): Yes  
New Zealand – New Zealand Inventory: Yes  
\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

### 16. OTHER INFORMATION

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**Remarks** Not applicable.

**Sources**

2013 TLVs and BEIs – Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices – ACGIH  
2013 Guide to Occupational Exposure Values – ACGIH.  
European Chemicals Bureau - <http://ecb.jrc.it>  
eChemPortal - The Global Portal to Information on Chemical Substances.  
LOLI - ChemADVISOR's Regulatory Database.  
HSDB - Hazardous Substances Data Bank.  
NTP - National Toxicity Program, National Institute of Environmental Health (EUA).

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### Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists (USA).  
ADR: European agreement concerning the international carriage of dangerous goods by road.  
CAS: Chemical Abstracts Service (American Chemical Society - EUA).  
EC50: Average concentration for 50% of maximum response.  
LC: Lethal Concentration - substance concentration in the environment that leads to death after a certain period of exposure.  
LC50: Lethal concentration for 50% of the test animals.  
BOD: Biochemical Oxygen Demand.  
LD50: Lethal Dose for 50% of the test animals.  
LDLo: Lethal Dose Low - minimal amount of a chemical lethal to animals in testing.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.  
IARC: International Agency for Research on Cancer.  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods by Regulations by the IATA  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the ICAO.  
IMDG: International Maritime Code for Dangerous Goods.  
IDLH - Immediately Dangerous To Life or Health Concentrations.  
Kow: Octanol/water partition coefficient.  
LT (NR 15): Exposure limits of the standard number 15 - Unhealthy Operations and Activities from the Ministry of Labour and Employment of Brazil.  
LOAEL: Lowest Adverse Effect Level  
LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database  
NLP: No Longer Polymers.  
NIOSH: National Institute for Occupational Safety and Health.  
NOAEL: No Observed Adverse Effect Level  
NTP: National Toxicology Program.  
OSHA: Occupational Safety and Health Administration (EUA).  
PEL-TWA: Exposure Limit Allowed – time-weighted average.  
RID: Regulations concerning the international transport of dangerous goods by rail.  
TLV-STEL: Tolerance Limit - short period of time (15 minutes, maximum).  
TLV-TWA: Tolerance Limit – time weighted average.  
WGK: Wassergefährdungsklasse (Germany) - Water Hazard Class.

### Disclaimer

The information provided in this Material Safety Data Sheet is based on current available data and knowledge and is believed to be accurate and given in good faith. Voyageur Soap & Candle Co. LTD and its subsidiaries however assume no liability and make no warranty, either expressed or implied, pertaining to the accuracy and completeness of the information contained herein including in regards to fitness and merchantability. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and therefore should not be construed as guaranteeing any specific property. The information herein relates only to the specific designated material and may not be valid for such material used in combination with any other materials, or in any process not specified in the text. Users should therefore consider this data only as a supplement to other information available from all other sources, and should incorporate this information into programs for the proper use and disposal of their materials and the health and safety of employees and customers.

End of Safety Data Sheet