



May 9, 2022

U.S. Environmental Protection Agency  
Office of Pesticide Programs, Mail Code 7506C  
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Washington, DC 20460  
Email: [hollis.linda@epa.gov](mailto:hollis.linda@epa.gov) and [smoot.cameo@epa.gov](mailto:smoot.cameo@epa.gov)

**REF.: Commencement of a rulemaking – Add ingredients into the Eligible Inert Ingredients under 40 CFR 152.25(f)(2)(iv)**

Dear Office of Pesticide Programs,

Momentive Performance Materials Inc. headquartered at 260 Hudson River Rd, Waterford, NY 12188, United States, respectfully requests commencement of a rulemaking to add additional ingredients into the Eligible Inert Ingredients list under 40 CFR 152.25(f)(2)(iv).

Attachment 1 provides specific information and the rationale supporting the request.

Please consider this information as confidential.

Please feel free to contact me at the telephone number or email address listed below if you have any further questions in this regard.

Sincerely,

A handwritten signature in blue ink, appearing to read "Pedro Aquino".

**Pedro Aquino**  
**Product Stewardship Global Partner Agriculture**  
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## ATTACHMENT 01

Rationale



**MOMENTIVE PERFORMANCE MATERIALS**

**Y-20956 - Surfactant Blend**

**Rationale to add into the Eligible Inert Ingredients list  
under 40 CFR 152.25(f)(2)(iv)**

**May 2022**



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## 1. Momentive Performance Materials

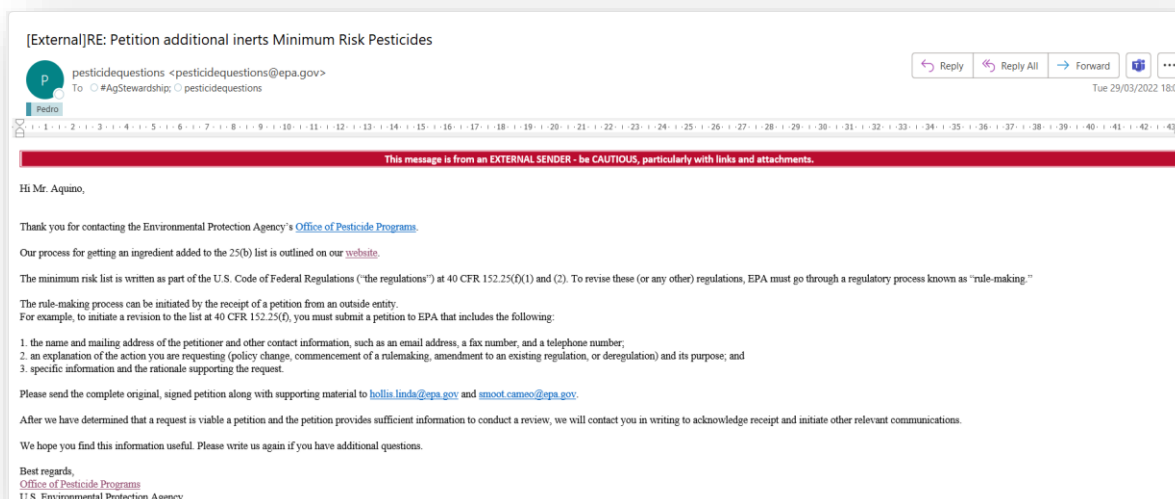
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Momentive Performance Materials is a global leader in the production of organosilicone based materials used as inert ingredients in agricultural application, as in-can (antifoam) or tank-mix (spreader).

## 2. Background of the request

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Momentive Performance Materials is following the guidance received via e-mail from the Office of Pesticide Programs on March 29, 2022, on how to add ingredients into the eligible inert ingredient list under 40 CFR 152.25(f)(2)(iv). As we understood, the review of 40 CFR 152.25(f)(2)(iv) requires the commencement of a rulemaking process, and for that Momentive is submitting here information with a rationale to support this request.



## 3. Inert ingredient proposed to be added

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The inert ingredients Momentive wishes to add into 40 CFR 152.25(f)(2)(iv) are part of a **Surfactant Blend** identified internally at Momentive by the code number Y-20956.

This **Surfactant Blend** consists of a Siloxane Polyalkyleneoxide Copolymer with a Polyalkylene Glycol, and an Alkyl Alcohol Alkoxyate. Please see in the following Table 1 the Confidential Statement of Formula for this material, as well as detailed information for each of the components.

**Table 1: Surfactant Blend confidential statement of formula**

ID	CAS Number	Chemical name	Wt %	Function	Inert status 40 CFR§	EPA List 4B
Silwet 408	67674-67-3	Siloxane Polyalkyleneoxide Copolymer	44.85%	Spreader	180.910 180.930	Listed
	27274-31-3	Polyalkylene Oxide	8.50%	Excess Starting Material (Unintended Impurity)	180.910 180.930	Listed
Polyalkylene Oxide	9003-11-6	Polyalkylene Oxide	29.00%	Emulsifier	180.940a 180.940c 180.960	Listed
Alcohols, C12-14-secondary, ethoxylated	68131-40-8	Alcohols, C12-14-secondary, ethoxylated	17.60%	Emulsifier	180.910 180.930 180.940a 180.960	Listed
Isopropanol	67-63-0	Isopropanol	0.05%	Unintended Impurity	180.950e	Listed

Please find as **Document 01**, the safety data sheets for the components of this **Surfactant Blend**, as well as the safety data sheet for the **Surfactant Blend** itself.

#### 4. Request

Based on the above information, Momentive respectfully requests the revision and inclusion of this material, described as **Surfactant Blend**, into the eligible inert ingredients list under 40 CFR 152.25(f)(2)(iv), to be used as inert ingredient in the formulation of minimum risk pesticides, as described in 40 CFR 152.25(f).

Please feel free to reach out to us in case additional information is needed to support this application.



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## SAFET DATA SHEETS

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Y-20956

**Other means of identification**

**Synonyms:** Nonionic Surfactant and Siloxane Polyalkyleneoxide Copolymer Blend

**Recommended use and restriction on use**

**Recommended use:** Inert ingredient to be used in agrochemical formulations

**Restrictions on use:** Not for aerosol use

**Manufacturer/Importer/Distributor Information** : Momentive Performance Materials - Sistersville  
10851 Energy Highway  
FRIENDLY WV 26146

**Contact person** : commercial.services@momentive.com

**Telephone** : General information  
+1-800-295-2392

**Emergency telephone number**

**Supplier** : CHEMTREC  
1-800-424-9300

## 2. Hazard(s) identification

**Hazard Classification**

**Health Hazards**

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 1

**Unknown toxicity - Health**

Acute toxicity, oral	0 %
Acute toxicity, dermal	0 %
Acute toxicity, inhalation, vapor	0 %
Acute toxicity, inhalation, dust or mist	0 %

**Label Elements**

**Hazard Symbol:**





**Signal Word:** Danger

**Hazard Statement:** H315; Causes skin irritation.  
 H318; Causes serious eye damage.

**Precautionary Statements**

**Prevention:** Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water/... If skin irritation occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). Take off contaminated clothing.

**Other hazards which do not result in GHS classification:** None.

**3. Composition/information on ingredients**

**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*	Notes
Siloxane Polyalkylenoxide Copolymer	Trade secret	20 - <50%	No data available.
Secondary alcohol ethoxylate	Trade secret	10 - <20%	No data available.

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Trade secret information:** \*\* A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**4. First-aid measures**

**Ingestion:** Do NOT induce vomiting. If conscious, drink plenty of water. Seek medical attention.

**Inhalation:** After inhalation of aerosol/mist seek medical advice immediately. Remove from contaminated area. Apply artificial respiration if not breathing. Call a physician or poison control center immediately. For breathing difficulties, oxygen may be necessary.

**Y-20956**

**Skin Contact:** Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if symptoms persist. Wash contaminated clothing before reuse.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

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

**Symptoms:** No data available.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treatment is symptomatic and supportive.

**5. Fire-fighting measures**

**General Fire Hazards:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** All standard extinguishing agents are suitable.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** In case of fire, carbon monoxide and carbon dioxide may be formed. Acute overexposure to the products of combustion may result in irritation of the respiratory tract. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters:** Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

**6. Accidental release measures**

**Y-20956**

<b>Personal precautions, protective equipment and emergency procedures:</b>	Caution: Contaminated surfaces may be slippery. Avoid contact with skin and eyes. See Section 8 of the SDS for Personal Protective Equipment. Keep out of reach of children.
<b>Methods and material for containment and cleaning up:</b>	Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.
<b>Environmental Precautions:</b>	Do not allow runoff to sewer, waterway or ground.

**7. Handling and storage**

<b>Precautions for safe handling:</b>	Sensitivity to static discharge is not expected. Do not taste or swallow. Do not get in eyes, on skin, on clothing. Use personal protective equipment as required. Wash hands after handling.
<b>Conditions for safe storage, including any incompatibilities:</b>	Keep container closed. Keep away from sources of ignition - No smoking. Use original container or packaging of similar material of construction

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

None of the components have assigned exposure limits.

**Appropriate Engineering Controls**

Provide eyewash station and safety shower. General (mechanical) room ventilation is expected to be satisfactory if handled at low temperatures or in covered equipment. Provide adequate ventilation if fumes or vapors are generated.

**Individual protection measures, such as personal protective equipment**

**General information:** General (mechanical) room ventilation is expected to be satisfactory if handled at low temperatures or in covered equipment.

**Eye/face protection:** Monogoggles

**Skin Protection**

**Hand Protection:** Chemical resistant gloves

**Other:** Wear suitable protective clothing and eye/face protection.

**Respiratory Protection:** If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

**Y-20956**

**Hygiene measures:** Avoid inhalation of vapors and spray mists. Avoid contact with eyes, skin, and clothing. When using do not eat, drink or smoke. Wash thoroughly after handling.

**9. Physical and chemical properties**

**Appearance**

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Polyether
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	< 0 °C
<b>Initial boiling point and boiling range:</b>	> 115 °C
<b>Flash Point:</b>	107.2 °C estimated
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Heat of combustion:</b>	No data available.
<b>Vapor pressure:</b>	< 1.33 hPa (20 °C)
<b>Vapor density:</b>	Heavier than air
<b>Density:</b>	1.0071 g/cm <sup>3</sup> (25 °C)
<b>Relative density:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Dispersible
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water) Log Pow:</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>SADT:</b>	No data available.
<b>Viscosity, dynamic:</b>	No data available.
<b>Viscosity, kinematic:</b>	No data available.
<b>VOC:</b>	; No data available.

**10. Stability and reactivity**

**Reactivity:** No dangerous reaction if used as recommended.  
**Chemical Stability:** Material is stable under normal conditions.

**Y-20956**

<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Avoid contact with: Moisture.
<b>Incompatible Materials:</b>	Normally unreactive; however avoid contact with: Materials reactive with hydroxyl compounds.
<b>Hazardous Decomposition Products:</b>	In case of fire, gives off (emits): Carbon oxides Oxides of silicon. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

<b>11. Toxicological information</b>
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**General information:** This product is not tested. Aerosols of this product have a high inhalation toxicity potential. Therefore, when spraying this product and mixtures thereof with other components, exposure must be completely avoided. The use of respiratory equipment is mandatory for all spray applications.

**Information on likely routes of exposure**

- Ingestion:** No data available.
- Inhalation:** No data available.
- Skin Contact:** No data available.
- Eye contact:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Ingestion:** No data available.
- Inhalation:** No data available.
- Skin Contact:** No data available.
- Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

- Oral**
  - Product:** Not classified for acute toxicity based on available data.
- Dermal**
  - Product:** Not classified for acute toxicity based on available data.

**Inhalation**

**Product:** LC50 (Rat): 2 mg/l  
LC50 (Rat): > 11.78 mg/l [5% Diluted aqueous solution. The health hazard evaluation is based on the toxicological properties of a similar material.]  
ATEmix : 24.55 mg/l  
ATEmix : 24.59 mg/l

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** No data available.

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.

**Respiratory or Skin Sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** Ames-Test: negative

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:**

Information refers to the main component. No adverse effects anticipated from available information. The information given is based on data available for the material, the components of the material, and similar materials. This material was not mutagenic in an Ames bacterial assay or in three mammalian test systems including the Chinese hamster ovary (CHO)/HGPRT gene mutation assay, a micronucleus cytogenetic assay in mice, and an in vitro mammalian cytogenetic test.

In a repeated skin application study with rats, this material caused moderate skin irritation which resolved during a post-application recovery period. There was no evidence for percutaneous cumulative or specific organ toxicity, and no effect on male or female reproductive systems.

Findings from a 14-day dietary feeding study with rats show that high dosage repeated ingestion of this material causes reversible adverse effects on the male and female reproductive tracts. Additional effects seen include increased liver weight, altered blood cytology/chemistry, and thyroid enlargement (primarily hypertrophy, with some hyperplasia). Evidence of partial or complete recovery was found over a 28-day recovery period.

Findings from a repeat 9-day aerosol inhalation toxicity study with rats show a no-observable-effect-level (NOEL) of less than 0.025 mg/l. Symptoms of toxicity included rales, gasping, ocular opacity, prostration, hypothermia, reduced body weight gain and food consumption, changes in clinical pathology, decreased thymus weight, and microscopic lesions in the nasal cavity. There was no effect on the male or female reproductive systems. It is not anticipated that the use of aqueous dilutions of this product would result in this type of aerosol exposure.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** LC50 (Rainbow Trout, 96 h): 4.5 mg/l  
 NOEC (Rainbow Trout, 96 h): 3.2 mg/l

**Aquatic Invertebrates**

**Product:** EC50 (Daphnia magna, 48 h): 24 mg/l  
 NOEC (Daphnia magna, 48 h): 5.6 mg/l

**Chronic hazards to the aquatic environment:**

**Fish**  
**Product:** No data available.

**Aquatic Invertebrates**  
**Product:** No data available.

**Toxicity to Aquatic Plants**  
**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**  
**Product:** No data available.

**BOD/COD Ratio**  
**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**  
**Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)**  
**Product:** Log Kow: No data available.

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

Siloxane Polyalkylenoxide Copolymer No data available.  
Secondary alcohol ethoxylate No data available.

**Other adverse effects:** No data available.

**13. Disposal considerations**

**General information:** The generation of waste should be avoided or minimized wherever possible. Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.

**Disposal instructions:** Disposal should be made in accordance with federal, state and local regulations.



**Contaminated Packaging:** Dispose of as unused product.

**14. Transport information**

**DOT**

UN Number: UN 3082  
 UN Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.(Siloxane Polyalkyleneoxide Copolymer)  
 Transport Hazard Class(es)  
     Class: 9  
     Label(s): 9  
 Packing Group: III  
 Marine Pollutant: Yes

**IMDG**

UN Number: UN 3082  
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Siloxane Polyalkyleneoxide Copolymer)  
 Transport Hazard Class(es)  
     Class: 9  
     Label(s): 9  
     EmS No.: F-A, S-F  
 Packing Group: III  
 Marine Pollutant: Yes  
 Limited quantity 5.00L  
 Excepted quantity E1

**IATA**

UN Number: UN 3082  
 Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.(Siloxane Polyalkyleneoxide Copolymer)  
 Transport Hazard Class(es):  
     Class: 9  
     Label(s): 9MI  
 Packing Group: III  
     Cargo aircraft only Packing Instructions: 964  
     Passenger and cargo aircraft Packing Instructions: 964  
     Limited quantity: Y964  
     Packing Instructions: Y964  
     Excepted quantity: E1  
 Environmental Hazards: Environmentally hazardous  
 Marine Pollutant: Yes

**Special precautions for user:** This substance/preparation meets the criteria of a Marine Pollutant (see IMDG paragraph 2.9.3.3) but is not identified in the IMDG Code (Marpol list). As such, substance/preparation shall be transported as a marine pollutant in accordance with the IMDG code.

## 15. Regulatory information

### US Federal Regulations

#### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

#### **CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

#### **Superfund Amendments and Reauthorization Act of 1986 (SARA)**

##### **Hazard categories**

Skin Corrosion or Irritation

Serious eye damage or eye irritation

##### **SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

##### **SARA 304 Emergency Release Notification**

None present or none present in regulated quantities.

##### **SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Siloxane Polyalkylenoxide Copolymer	10000 lbs
Secondary alcohol ethoxylate	10000 lbs

##### **SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

#### **Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

#### **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

### US State Regulations

#### **US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

#### **US. New Jersey Worker and Community Right-to-Know Act**

##### Chemical Identity

Siloxane Polyalkylenoxide Copolymer

Polyalkylene Oxide

Secondary alcohol ethoxylate

Polyalkylene Oxide

Y-20956

Polyalkylene Glycol

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

**Inventory Status:**

Australia AICS:	On or in compliance with the inventory	Remarks: None.
Canada DSL Inventory List:	On or in compliance with the inventory	Remarks: None.
EINECS, ELINCS or NLP:	On or in compliance with the inventory	Remarks: None.
Japan (ENCS) List:	On or in compliance with the inventory	Remarks: None.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory	Remarks: None.
Canada NDSL Inventory:	Not in compliance with the inventory.	Remarks: None.
Philippines PICCS:	On or in compliance with the inventory	Remarks: None.
US TSCA Inventory:	On or in compliance with the inventory	Remarks: None.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory	Remarks: None.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory	Remarks: None.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	3
<b>Flammability</b>	1
<b>Physical Hazards</b>	0
<b>PERSONAL PROTECTION</b>	

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**Issue Date:** 12/03/2019

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**Y-20956**

**Revision Date:** No data available.

**Version #:** 3.0

**Further Information:** No data available.

**Disclaimer:**

**Notice to reader**

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives. Keep out of the reach of children.

**Further Information**

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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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**Silwet\* 408 surfactant**

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Silwet\* 408 surfactant

**Other means of identification**

**Synonyms:** Polyalkyleneoxide Modified Heptamethyltrisiloxane

**Recommended use and restriction on use**

**Recommended use:** Agricultural Use.

**Restrictions on use:** Not for aerosol use

**Manufacturer/Importer/Distributor Information :** Momentive Performance Materials - Sistersville  
10851 Energy Highway  
FRIENDLY WV 26146

**Contact person :** commercial.services@momentive.com

**Telephone :** General information  
+1-800-295-2392

**Emergency telephone number**

**Supplier :** CHEMTREC  
1-800-424-9300

## 2. Hazard(s) identification

**Hazard Classification**

**Health Hazards**

Acute toxicity (Inhalation - vapor)      Category 4  
Serious Eye Damage/Eye Irritation      Category 2A

**Unknown toxicity - Health**

Acute toxicity, inhalation, vapor	0 %
Acute toxicity, inhalation, dust or mist	0 %

**Label Elements**

**Hazard Symbol:**



**Silwet\* 408 surfactant**

**Signal Word:** Warning

**Hazard Statement:** H332; Harmful if inhaled.  
 H319; Causes serious eye irritation.

**Precautionary Statements**

**Prevention:** Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell.

**Other hazards which do not result in GHS classification:** None.

**3. Composition/information on ingredients**

**Substances**

Chemical Identity	CAS number	Content in percent (%)*
Polyalkyleneoxide Modified Heptamethyltrisiloxane	67674-67-3	50 - <100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

**Ingestion:** Do NOT induce vomiting. If conscious, drink plenty of water. Do not give victim anything to drink if he is unconscious. Get medical attention.

**Inhalation:** Move the exposed person to fresh air at once. Get medical attention.

**Skin Contact:** Wash area with soap and water.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses.

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

**Symptoms:** No data available.

**Hazards:** No data available.

**Indication of immediate medical attention and special treatment needed**

**Silwet\* 408 surfactant**

**Treatment:** There is no specific antidote. Treatment is symptomatic and supportive.

**5. Fire-fighting measures**

**General Fire Hazards:** Do not use water jet as an extinguisher, as this will spread the fire. Use water spray to keep fire-exposed containers cool.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Dry chemical. Carbon Dioxide. Alcohol-resistant foam Water spray, fog or mist.

**Unsuitable extinguishing media:** water jet

**Specific hazards arising from the chemical:** No data available.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** All equipment used when handling the product must be grounded.

**Special protective equipment for fire-fighters:** Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.  
Wear self-contained breathing apparatus and protective clothing.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Avoid contact with skin and eyes. Consult the manufacturer before using an aerosol of the neat liquid. Keep out of reach of children. Attention: Not for injection into humans.

**Methods and material for containment and cleaning up:** Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

**Environmental Precautions:** Prevent runoff from entering drains, sewers, or streams.

**7. Handling and storage**

**Precautions for safe handling:** Sensitivity to static discharge is not expected.

**Conditions for safe storage, including any incompatibilities:** Keep container closed. Store in original container.



**Silwet\* 408 surfactant**

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

None of the components have assigned exposure limits.

**Appropriate Engineering Controls**

Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment**

**General information:** No data available.

**Eye/face protection:** Monogoggles

**Skin Protection**

**Hand Protection:** Use chemical-resistant, impervious gloves.

**Other:** Wear suitable protective clothing and eye/face protection.

**Respiratory Protection:** If inhalation exposure is expected, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

**Hygiene measures:** It is good practice in industrial hygiene to avoid contact with solvents by using appropriate protective measures whenever possible.

**9. Physical and chemical properties**

**Appearance**

**Physical state:** liquid

**Form:** liquid

**Color:** Pale yellow

**Odor:** Polyether

**Odor threshold:** No data available.

**pH:** No data available.

**Melting point/freezing point:** -8 °C Pour Point

**Initial boiling point and boiling range:** > 150 °C (1,013 hPa) Copolymer

**Flash Point:** 118 °C (ASTM D 93)

**Evaporation rate:** < 1 (n-Butyl acetate=1)

**Flammability (solid, gas):** No data available.

**Upper/lower limit on flammability or explosive limits**

**Flammability limit - upper (%):** No data available.

**Flammability limit - lower (%):** No data available.

**Explosive limit - upper:** No data available.

**Explosive limit - lower:** No data available.

**Heat of combustion:** No data available.

**Silwet\* 408 surfactant**

<b>Vapor pressure:</b>	< 1.33 hPa (20 °C)
<b>Vapor density:</b>	Heavier than air
<b>Density:</b>	1.0200 g/cm <sup>3</sup> (25 °C)
<b>Relative density:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Dispersible
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water) Log Pow:</b>	> 3.30 ; pH 5 > 3.31 ; pH 7 > 3.31 ; pH 9
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>SADT:</b>	No data available.
<b>Viscosity, dynamic:</b>	No data available.
<b>Viscosity, kinematic:</b>	No data available.
<b>VOC:</b>	12.1 g/l ;

**10. Stability and reactivity**

<b>Reactivity:</b>	No dangerous reaction if used as recommended.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Keep away from heat, sparks and open flame.
<b>Incompatible Materials:</b>	Strong Acids, Strong Bases
<b>Hazardous Decomposition Products:</b>	In case of fire, gives off (emits): Carbon oxides Oxides of silicon. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

**11. Toxicological information**

**Information on likely routes of exposure**

<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.

---

**Silwet\* 408 surfactant**

**Symptoms related to the physical, chemical and toxicological characteristics**

**Ingestion:** No data available.  
**Inhalation:** No data available.  
**Skin Contact:** No data available.  
**Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**  
**Product:** LD 50 (Rat): > 2,000 mg/kg

**Dermal**  
**Product:** LD 50 (Rat): > 2,000 mg/kg

**Inhalation**  
**Product:** LC50 (Rat): 2 mg/l  
LC50 (Rat): > 11.78 mg/l  
ATEmix : 13.1 mg/l

**Repeated dose toxicity**  
**Product:** NOAEL (Rat, Oral, 28 d): 450 mg/kg

**Skin Corrosion/Irritation**  
**Product:** (Rabbit): No skin irritation

**Serious Eye Damage/Eye Irritation**  
**Product:** (Rabbit, 4 h): Strongly irritating.

**Respiratory or Skin Sensitization**  
**Product:** (Guinea Pig) Did not cause sensitization on laboratory animals.

**Carcinogenicity**  
**Product:** No data available.

---

**Silwet\* 408 surfactant**

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Silwet\* 408 surfactant**

**Other effects:**

This product is not tested. No adverse effects anticipated from available information. This material was not mutagenic in an Ames bacterial assay or in three mammalian test systems including the Chinese hamster ovary (CHO)/HGPRT gene mutation assay, a micronucleus cytogenetic assay in mice, and an in vitro mammalian cytogenetic test.

In a repeated skin application study with rats, this material caused moderate skin irritation which resolved during a post-application recovery period. There was no evidence for percutaneous cumulative or specific organ toxicity, and no effect on male or female reproductive systems.

Findings from a 14-day dietary feeding study with rats show that high dosage repeated ingestion of this material causes reversible adverse effects on the male and female reproductive tracts. Additional effects seen include increased liver weight, altered blood cytology/chemistry, and thyroid enlargement (primarily hypertrophy, with some hyperplasia). Evidence of partial or complete recovery was found over a 28-day recovery period.

Findings from a repeat 9-day aerosol inhalation toxicity study with rats show a no-observable-effect-level (NOEL) of less than 0.025 mg/l. Symptoms of toxicity included rales, gasping, ocular opacity, prostration, hypothermia, reduced body weight gain and food consumption, changes in clinical pathology, decreased thymus weight, and microscopic lesions in the nasal cavity. There was no effect on the male or female reproductive systems. It is not anticipated that the use of aqueous dilutions of this product would result in this type of aerosol exposure.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** LC50 (Zebra Fish, 96 h): 6.8 mg/l

**Aquatic Invertebrates**

**Product:** EC50 (Daphnia magna, 48 h): 25 mg/l

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** EC50 (Algae (Pseudokirchneriella subcapitata), 96 h): 32 mg/l

**Persistence and Degradability**

**Biodegradation**

**Product:** The product is not readily biodegradable.

**Silwet\* 408 surfactant**

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** Log Kow: > 3.30  
Log Kow: > 3.31  
Log Kow: > 3.31

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

Polyalkyleneoxide Modified Heptamethyltrisiloxane No data available.

**Other adverse effects:** No data available.

**13. Disposal considerations**

**General information:** The generation of waste should be avoided or minimized wherever possible. Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.

**Disposal instructions:** Disposal should be made in accordance with federal, state and local regulations.

**Contaminated Packaging:** Dispose of as unused product.

**14. Transport information**

**DOT**

UN Number: UN 3082  
UN Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.(Polyalkyleneoxide Modified Heptamethyltrisiloxane)  
Transport Hazard Class(es)  
Class: 9  
Label(s): 9  
Packing Group: III  
Marine Pollutant: Yes

**Silwet\* 408 surfactant**

**IMDG**

UN Number:	UN 3082
UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Polyalkyleneoxide Modified Heptamethyltrisiloxane)
Transport Hazard Class(es)	
Class:	9
Label(s):	9
EmS No.:	F-A, S-F
Packing Group:	III
Marine Pollutant:	Yes
Limited quantity	5.00L
Excepted quantity	E1

**IATA**

UN Number:	UN 3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.(Polyalkyleneoxide Modified Heptamethyltrisiloxane)
Transport Hazard Class(es):	
Class:	9
Label(s):	9MI
Packing Group:	III
Cargo aircraft only Packing Instructions:	964
Passenger and cargo aircraft Packing Instructions:	964
Limited quantity:	30.00L
Packing Instructions:	Y964
Excepted quantity	E1
Environmental Hazards:	Environmentally hazardous
Marine Pollutant:	Yes

**Special precautions for user:** This substance/preparation meets the criteria of a Marine Pollutant (see IMDG paragraph 2.9.3.3) but is not identified in the IMDG Code (Marpol list). As such, substance/preparation shall be transported as a marine pollutant in accordance with the IMDG code.

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

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**Silwet\* 408 surfactant**

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Acute toxicity (any route of exposure)

Serious eye damage or eye irritation

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

None present or none present in regulated quantities.

**SARA 311/312 Hazardous Chemical**

**Chemical Identity**

**Threshold Planning Quantity**

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

**US. New Jersey Worker and Community Right-to-Know Act**

**Chemical Identity**

Polyalkyleneoxide Modified Heptamethyltrisiloxane

Polyalkylene Oxide

2-Propanol

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.



**Silwet\* 408 surfactant**

**Inventory Status:**

Australia AICS:	On or in compliance with the inventory	Remarks: None.
Canada DSL Inventory List:	On or in compliance with the inventory	Remarks: None.
EINECS, ELINCS or NLP:	On or in compliance with the inventory	Remarks: None.
Japan (ENCS) List:	On or in compliance with the inventory	Remarks: None.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory	Remarks: None.
Canada NDSL Inventory:	Not in compliance with the inventory.	Remarks: None.
Philippines PICCS:	On or in compliance with the inventory	Remarks: None.
US TSCA Inventory:	On or in compliance with the inventory	Remarks: None.
New Zealand Inventory of Chemicals:	On or in compliance with the inventory	Remarks: None.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory	Remarks: None.
REACH:	If purchased from Momentive Performance Materials GmbH in Leverkusen, Germany, all substances in this product have been registered by Momentive Performance Materials GmbH or upstream in our supply chain or are exempt from registration under Regulation (EC) No 1907/2006 (REACH). For polymers, this includes the constituent monomers and other reactants.	Remarks: None.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	2
<b>Flammability</b>	1
<b>Physical Hazards</b>	0
<b>PERSONAL PROTECTION</b>	

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**Issue Date:** 04/16/2020

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**Silwet\* 408 surfactant**

**Revision Date:** No data available.

**Version #:** 3.2

**Further Information:** No data available.

**Disclaimer:**

**Notice to reader**

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives. Keep out of the reach of children.

**Further Information**

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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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# Safety Data Sheet

Issuing Date 16-Jan-2019

Revision Date 16-Jan-2019

Revision Number 3

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

### Product identifier

**Product Name** LUMULSE™ 2017-R Special

### Other means of identification

**Product Code** 2017RS  
**Synonyms** Block copolymer

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

**Recommended Use** Multi-purpose polymer.

### Details of the supplier of the safety data sheet

**Manufacturer Address** Vantage Specialties, Inc.  
3938 Porett Drive  
Gurnee, IL 60031 USA  
+1 847-244-3410

### Emergency Telephone Number

**Emergency Telephone Number** CHEMTREC International: +1-703-527-3887

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is not hazardous by the 2012 OSHA Hazard Communication Standard.

This is not a dangerous substance or mixture according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

### Label Elements

#### EMERGENCY OVERVIEW

Not Hazardous

**Color** Colorless

**Physical State** Liquid

**Odor** Mild

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** Block copolymer.

Chemical Name	CAS No.	Weight-%
Poloxamer 331	9003-11-6	100

## 4. FIRST AID MEASURES

### FIRST AID MEASURES

<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Skin contact</b>	IF ON SKIN: Wash with soap and water.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

**Symptoms** None identified.

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

**Notes to Physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

<b><u>Suitable extinguishing media</u></b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	None known.
<b><u>Specific hazards arising from the chemical</u></b>	None identified.
<b>Hazardous combustion products</b>	Carbon oxides.
<b><u>Explosion Data</u></b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	None.
<b><u>Protective equipment and precautions for firefighters</u></b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

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

**Personal Precautions** Use personal protective equipment.

**Environmental precautions**

**Environmental precautions** Prevent release to surface water.

**Methods and material for containment and cleaning up**

**Methods for Cleaning Up** Absorb with an inert material.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice.

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

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible materials** Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriate engineering controls

**Engineering Measures** Safety Shower  
Eyewash station  
Ventilation system.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Safety glasses with side-shields.  
**Skin and Body Protection** Protective gloves.  
**Respiratory Protection** Use only with adequate ventilation.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid		
<b>Appearance</b>	Clear	<b>Odor</b>	Mild
<b>Color</b>	Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>		Not determined
<b>Melting point / freezing point</b>	-25 °C	Pour point
<b>Boiling point / boiling range</b>	> 200 °C	
<b>Flash Point</b>	> 175 °C	Open cup (BUAC = 1)
<b>Evaporation Rate</b>	< 1	
<b>Flammability (solid, gas)</b>	May burn if exposed to open flames.	
<b>Flammability Limit in Air</b>		Not determined
<b>Upper flammability limit</b>		
<b>Lower Flammability Limit</b>		
<b>Vapor pressure</b>	< 1	mm Hg
<b>Vapor Density</b>		Not determined @ 25°C
<b>Specific Gravity</b>	1.03	
<b>Water Solubility</b>	Soluble	
<b>Solubility in other solvents</b>		Not determined
<b>Partition coefficient</b>		Not determined
<b>Autoignition Temperature</b>		Not determined
<b>Decomposition temperature</b>		Not determined
<b>Kinematic viscosity</b>	330 cps @ 25°C	
<b>Dynamic viscosity</b>		Not determined
<b>Explosive Properties</b>	None	
<b>Oxidizing Properties</b>	None	

### Other Information

## 10. STABILITY AND REACTIVITY

**Reactivity** Not reactive  
**Remarks**

**Chemical stability** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

**Hazardous Reactions** None under normal processing.  
**Conditions to Avoid** Extremes of temperature and direct sunlight

**Incompatible materials** Strong oxidizing agents.

**Hazardous Decomposition Products**

None identified.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information** Product does not present an acute toxicity hazard based on published data for similar substances.

**Inhalation** No known hazard.

**Eye contact** Not irritating to eyes.

**Skin contact** Not irritating to skin.

**Ingestion** Ingestion may cause stomach discomfort.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Poloxamer 331 9003-11-6	= 16 g/kg ( Rat ) = 5700 mg/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** None known.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** Contains no listed human carcinogens at greater than 0.1%.

**Numerical measures of toxicity-Product Information** Not determined

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Not expected to be toxic to aquatic organisms.

**Persistence and degradability**

No data available.

**Bioaccumulation/Accumulation**

Not expected to be bioaccumulative.

**Other Adverse Effects**

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

<b>Waste Disposal Method</b>	Dispose of in accordance with applicable regulations.
<b>Contaminated Packaging</b>	Dispose of in accordance with applicable regulations.

### 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not regulated
<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b><u>IMDG / IMO</u></b>	Not regulated

### 15. REGULATORY INFORMATION

#### International Inventories

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>EINECS</b>	Polymer
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

#### Legend

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*  
*DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List*  
*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*  
*ENCS - Japan Existing and New Chemical Substances*  
*IECSC - China Inventory of Existing Chemical Substances*  
*KECL - Korean Existing and Evaluated Chemical Substances*  
*PICCS - Philippines Inventory of Chemicals and Chemical Substances*  
*AICS - Australian Inventory of Chemical Substances*

#### U.S. Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

##### **SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

##### **Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40



CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**U.S. State Regulations**

**California Proposition 65**

This product may contain trace levels of chemicals known to the state of California to cause cancer and birth defects and reproductive harm: ethylene oxide (75-21-8), propylene oxide (75-56-9) and 1,4-Dioxane (123-91-1).

**U.S. State Right-to-Know Regulations**

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazard 0</b>	<b>Flammability 1</b>	<b>Instability 0</b>	<b>Physical and Chemical Hazards n/a</b>
<b><u>HMIS</u></b>	<b>Health Hazard 0</b>	<b>Flammability 1</b>	<b>Physical hazards 0</b>	<b>Personal Precautions A</b>

**Issuing Date** 16-Jan-2019  
**Revision Date** 16-Jan-2019  
**Revision Note**  
**Reason for Revision** Periodic review and update

**Disclaimer**

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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

LUMULSE is a trademark of Vantage Specialties, Inc.





# SAFETY DATA SHEET

DOW CHEMICAL COMPANY LIMITED

Safety Data Sheet according to Reg. (EU) No 2015/830

**Product name:** TERGITOL™ 15-S-5 Surfactant

**Revision Date:** 17.02.2020

**Version:** 11.0

**Date of last issue:** 30.03.2018

**Print Date:** 18.02.2020

DOW CHEMICAL COMPANY LIMITED 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.

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## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

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### 1.1 Product identifier

**Product name:** TERGITOL™ 15-S-5 Surfactant

**Chemical name of the substance:** Alcohols C11-15 secondary, ethoxylated

**CASRN:** 68131-40-8

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

**Identified uses:** Multi-purpose surfactant.

### 1.3 Details of the supplier of the safety data sheet

#### COMPANY IDENTIFICATION

DOW CHEMICAL COMPANY LIMITED  
STATION ROAD, BIRCH VALE, HIGH PEAK  
DERBYSHIRE  
England  
SK22 1BR  
UNITED KINGDOM

**Customer Information Number:**

+44 (0) 1663 746518

SDSQuestion@dow.com

**Fax:**

+44 (0) 1663 746605

### 1.4 EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 0031 115 694 982

**Local Emergency Contact:** 00 31 115 69 4982

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## SECTION 2: HAZARDS IDENTIFICATION

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### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008:**

Skin irritation - Category 2 - H315

Serious eye damage - Category 1 - H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

### Hazard pictograms



Signal word: **DANGER**

### Hazard statements

H315 Causes skin irritation.  
 H318 Causes serious eye damage.

### Precautionary statements

P264 Wash skin thoroughly after handling.  
 P280 Wear protective gloves/ eye protection/ face protection.  
 P302 + P352 IF ON SKIN: Wash with plenty of water.  
 P305 + P351 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/  
 + P338 + doctor.  
 P310  
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.

## 2.3 Other hazards

Slipping hazard.

This product contains no substances assessed to be PBT or vPvB at levels of 0.1% or higher.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

This product is a substance.

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 68131-40-8 EC-No. Polymer Index-No. -	-	>= 97.0 %	Alcohols C11-15 secondary, ethoxylated	Skin Irrit. - 2 - H315 Eye Dam. - 1 - H318

<b>CASRN</b> 25322-68-3 <b>EC-No.</b> Polymer <b>Index-No.</b> –	–	<= 3.0 %	Poly(ethylene oxide)	Not classified
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If present in this product, any not classified components disclosed above for which no country specific OEL value(s) is(are) indicated under Section 8, are being disclosed as voluntarily disclosed components.

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4: FIRST AID MEASURES

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### 4.1 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:** Move person to fresh air and keep comfortable for breathing; consult a physician.

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

**Eye contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

### 4.2 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.

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

**Notes to physician:** Skin contact may aggravate preexisting dermatitis. No specific antidote.

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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## SECTION 5: FIREFIGHTING MEASURES

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### 5.1 Extinguishing media

**Suitable extinguishing media:** Water fog or fine spray.. Dry chemical fire extinguishers.. Carbon dioxide fire extinguishers.. Foam.. Alcohol resistant foams (ATC type) are preferred.

General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective..

**Unsuitable extinguishing media:** Do not use direct water stream.. May spread fire..

## 5.2 Special hazards arising from the substance or mixture

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.. Combustion products may include and are not limited to:. Carbon monoxide.. Carbon dioxide..

**Unusual Fire and Explosion Hazards:** Violent steam generation or eruption may occur upon application of direct water stream to hot liquids..

## 5.3 Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry.. Burning liquids may be extinguished by dilution with water.. Do not use direct water stream. May spread fire.. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage..

**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..

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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**6.1 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. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

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

**6.3 Methods and materials for containment and cleaning up:** Contain spilled material if possible. Absorb with materials such as: Sand. Dirt. Do not use water for cleanup. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

**6.4 Reference to other sections:** References to other sections, if applicable, have been provided in the previous sub-sections.

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## SECTION 7: HANDLING AND STORAGE

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**7.1 Precautions for safe handling:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**7.2 Conditions for safe storage, including any incompatibilities:** No specific requirements. Additional storage and handling information on this product may be obtained by calling your sales or

customer service contact. The shelf life given is for unopened containers stored under moderate temperature conditions.

**7.3 Specific end use(s):** See the technical data sheet on this product for further information.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 Control parameters

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

Component	Regulation	Type of listing	Value
Poly(ethylene oxide)	US WEEL	TWA aerosol	10 mg/m <sup>3</sup>

### Recommended monitoring procedures

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with the Occupational Exposure Limits and the adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples should be analysed by an accredited laboratory.

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy); European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents); European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods.

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods.

Health and Safety Executive (HSE), United Kingdom: Methods for the Determination of Hazardous Substances.

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany.

L'Institut National de Recherche et de Sécurité, (INRS), France.

### 8.2 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. Local exhaust ventilation may be necessary for some operations.

### Individual protection measures

**Eye/face protection:** Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

#### Skin protection

**Hand protection:** Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Examples of acceptable glove barrier materials include: Polyvinyl alcohol ("PVA").

When prolonged or frequently repeated contact may occur, a glove with a protection class of 4 or higher (breakthrough time greater than 120 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. **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:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

### Environmental exposure controls

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	Liquid.
Color	Yellow
Odor	Mild
Odor Threshold	No test data available
pH	5.5 - 7.5 <i>Calculated.</i>
Melting point/range	Not applicable
Freezing point	See Pour Point
Boiling point (760 mmHg)	> 250 °C at 760 mmHg <i>Calculated.</i> Decomposes before boiling
Flash point	<b>closed cup</b> 178 °C <i>ASTM D 93</i>



Evaporation Rate (Butyl Acetate = 1)	<0.01 <i>Calculated.</i>
Flammability (solid, gas)	Not applicable to liquids
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	< 0.01 mmHg at 20 °C <i>Calculated.</i>
Relative Vapor Density (air = 1)	>1 <i>Calculated.</i>
Relative Density (water = 1)	0.965 at 20 °C / 20 °C <i>Calculated.</i>
Water solubility	<i>Visual</i>
Partition coefficient: n-octanol/water	log Pow: 3.3 - 4.4 <i>Estimated.</i>
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	36 cSt at 25 °C <i>Calculated.</i>
Explosive properties	No data available
Oxidizing properties	No data available

#### 9.2 Other information

Molecular weight 420 g/mol *Calculated.*

Pour point -24 °C *Calculated.*

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

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## SECTION 10: STABILITY AND REACTIVITY

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**10.1 Reactivity:** No data available

**10.2 Chemical stability:** Thermally stable at typical use temperatures.

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

**10.4 Conditions to avoid:** Exposure to elevated temperatures can cause product to decompose.

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

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

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## SECTION 11: TOXICOLOGICAL INFORMATION

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

### 11.1 Information on toxicological effects

**Information on likely routes of exposure**

Ingestion, Inhalation, Skin contact, Eye contact.

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

**Acute oral toxicity**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Typical for this family of materials.  
LD50, Rat, > 3,000 mg/kg Estimated.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Typical for this family of materials. LD50, Rat, > 3,000 mg/kg Estimated.

**Poly(ethylene oxide)**

Typical for this family of materials. LD50, Rat, > 10,000 mg/kg Estimated.

**Acute dermal toxicity**

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

Typical for this family of materials.  
LD50, Rabbit, > 2,000 mg/kg Estimated.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

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

Typical for this family of materials. LD50, Rabbit, > 2,000 mg/kg Estimated.

**Poly(ethylene oxide)**

Typical for this family of materials. LD50, Rabbit, > 20,000 mg/kg

**Acute inhalation toxicity**

No adverse effects are anticipated from single exposure to vapor. For respiratory irritation and narcotic effects: No relevant data found.

The LC50 has not been determined.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

No adverse effects are anticipated from single exposure to vapor. For respiratory irritation and narcotic effects: No relevant data found.

The LC50 has not been determined.

**Poly(ethylene oxide)**

Typical for this family of materials. LC50, Rat, 6 Hour, dust/mist, > 2.5 mg/l No deaths occurred at this concentration.

**Skin corrosion/irritation**

Based on product testing:

Brief contact may cause slight skin irritation with local redness.

Prolonged contact may cause moderate skin irritation with local redness.

May cause drying and flaking of the skin.

Effects may be slow to heal.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

Brief contact may cause slight skin irritation with local redness.

Prolonged contact may cause moderate skin irritation with local redness.

May cause drying and flaking of the skin.

Effects may be slow to heal.

**Poly(ethylene oxide)**

Prolonged exposure not likely to cause significant skin irritation.

May cause more severe response if skin is abraded (scratched or cut).

**Serious eye damage/eye irritation**

Based on product testing:

May cause moderate eye irritation.

May cause moderate corneal injury.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

May cause moderate eye irritation.

May cause moderate corneal injury.

**Poly(ethylene oxide)**

May cause slight temporary eye irritation.

Corneal injury is unlikely.

**Sensitization**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

For skin sensitization:

No relevant data found.

For respiratory sensitization:  
No relevant data found.

**Poly(ethylene oxide)**

For this family of materials:  
Did not cause allergic skin reactions when tested in humans.  
For this family of materials, sensitization studies done in guinea pigs have been negative.

For respiratory sensitization:  
No relevant data found.

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

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

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

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

**Poly(ethylene oxide)**

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:**

**Alcohols C11-15 secondary, ethoxylated**

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

**Poly(ethylene oxide)**

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)**

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

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

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

**Poly(ethylene oxide)**

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

The use of topical applications containing this material may not be appropriate in severely burned patients.

This product should not be used in patients with kidney disease; these effects would not result from normal industrial handling.

**Carcinogenicity**

No relevant data found.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

No relevant data found.

**Poly(ethylene oxide)**

Polyethylene glycols did not cause cancer in long-term animal studies.

**Teratogenicity**

No relevant data found.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

No relevant data found.

**Poly(ethylene oxide)**

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

**Reproductive toxicity**

No relevant data found.

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

No relevant data found.

**Poly(ethylene oxide)**

In animal studies, did not interfere with reproduction.

**Mutagenicity**

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

**Information for components:**

**Alcohols C11-15 secondary, ethoxylated**

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

**Poly(ethylene oxide)**

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

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## **SECTION 12: ECOLOGICAL INFORMATION**

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

**12.1 Toxicity**

**Acute toxicity to fish**

For this family of materials:

Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

For this family of materials:

LC50, Pimephales promelas (fathead minnow), static test, 96 Hour, 3.5 - 4.9 mg/l, OECD Test Guideline 203 or Equivalent

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

For this family of materials:

EC50, Daphnia magna (Water flea), 48 Hour, 3.1 mg/l, OECD Test Guideline 202 or Equivalent

#### **12.2 Persistence and degradability**

**Biodegradability:** For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Not applicable

**Biodegradation:** > 60 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301F or Equivalent

#### **12.3 Bioaccumulative potential**

**Partition coefficient: n-octanol/water(log Pow):** 3.3 - 4.4 Estimated.

**Bioconcentration factor (BCF):** 15 - 64 Fish Estimated.

#### **12.4 Mobility in soil**

No specific, relevant data available for assessment.

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

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

#### **12.6 Other adverse effects**

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

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## **SECTION 13: DISPOSAL CONSIDERATIONS**

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### **13.1 Waste treatment methods**

This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

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## **SECTION 14: TRANSPORT INFORMATION**

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**Classification for ROAD and Rail transport (ADR/RID):**

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not regulated for transport
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not considered environmentally hazardous based on available data.
14.6 Special precautions for user	No data available.

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

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not regulated for transport
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not considered as marine pollutant based on available data.
14.6 Special precautions for user	No data available.
14.7 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):**

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not regulated for transport
14.3 Transport hazard class(es)	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	No data available.

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.

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**SECTION 15: REGULATORY INFORMATION**

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**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****REACH Regulation (EC) No 1907/2006**

Polymers are exempted from registration under REACH. All relevant starting materials and additives have been either registered, or are exempt from registration according to Regulation (EC) No. 1907/2006 (REACH). The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

**REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)**  
**REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)**

Conditions of restriction for the following entries should be considered:  
 Number on list 3

**Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.**

Listed in Regulation: Not applicable

### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture.

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## SECTION 16: OTHER INFORMATION

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### Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.  
 H318 Causes serious eye damage.

### Product Literature

Additional information on this product may be obtained by calling your sales or customer service contact. Ask for a product brochure. Additional information on this and other products may be obtained by visiting our web page.

### Revision

Identification Number: 166407 / A279 / Issue Date: 17.02.2020 / Version: 11.0

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

### Legend

TWA	8-hr TWA
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)
Eye Dam.	Serious eye damage
Skin Irrit.	Skin irritation

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -



Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW CHEMICAL COMPANY LIMITED 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.

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