



SAFETY DATA SHEET

DOW CHEMICAL CANADA ULC

Product name: DOWFAX™ 8390 Solution Surfactant

Issue Date: 04/13/2022

Print Date: 04/14/2022

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

1. IDENTIFICATION

Product name: DOWFAX™ 8390 Solution Surfactant

Other means of identification: No data available

Recommended use of the chemical and restrictions on use

Identified uses: For industrial use. Component(s) for the manufacture of urethane polymers. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

COMPANY IDENTIFICATION

DOW CHEMICAL CANADA ULC
#2400, 215 - 2ND STREET S.W.
CALGARY AB T2P 1M4
CANADA

Customer Information Number:

800-258-2436
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact (transportation emergencies only): 1-800-424-9300

Local Emergency Contact (transportation emergencies only): 1-800-424-9300

24-Hour Emergency Contact: 1-989-636-4400

2. HAZARDS IDENTIFICATION

Hazard classification

This product is hazardous under the criteria of the Hazardous Products Regulation (HPR) as implemented under the Workplace Hazardous Materials Information System (WHMIS 2015).
Serious eye damage - Category 1

Label elements

Hazard pictograms



Signal word: **DANGER!**

Hazards

Causes serious eye damage.

Precautionary statements**Prevention**

Wear 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. Immediately call a POISON CENTER and/or doctor.

Other hazards

Slipping hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Chemical name	Common name and synonym	CASRN	Concentration (w/w)
Water	water	7732-18-5	>= 59.0 %
Disodium hexadecyldiphenyloxide disulfonate	Benzenesulfonic acid, hexadecyl(sulfophenoxy)-, disodium salt	65143-89-7	>= 15.0 - <= 35.0 %
Disodium dihexadecyldiphenyloxide disulfonate	Benzenesulfonic acid, oxybis[hexadecyl-, disodium salt	70191-76-3	>= 5.0 - <= 10.0 %
Sulfuric acid disodium salt	Sulfuric acid disodium salt (8Cl, 9Cl)	7757-82-6	<= 1.5 %
Sodium chloride	sodium chloride	7647-14-5	< 1.0 %
2-Methyl-4-isothiazolin-3-one	2-methyl-2H-isothiazol-3-one	2682-20-4	<= 140.0 PPM

4. FIRST AID MEASURES

Description of first aid measures

General advice:

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

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

Skin contact: Wash off with plenty of water.

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

Ingestion: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

Most important symptoms and effects, both acute and delayed:

Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Because rapid absorption may occur through the lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Extinguishing media

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

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture

Hazardous combustion products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds..

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

Advice for firefighters

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

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate area. Refer to section 7, Handling, for additional precautionary measures. Only trained and properly protected personnel must be involved in clean-up operations. Keep upwind of spill. Ventilate area of leak or spill. Spilled material may cause a slipping hazard. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Spills or discharge to natural waterways is likely to kill aquatic organisms. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

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

7. HANDLING AND STORAGE

Precautions for safe handling: Do not get in eyes. Do not swallow. Avoid breathing vapor. Wash thoroughly after handling. Use with adequate ventilation. Keep container closed. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Avoid concentrated oxidizing acids. 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.

Storage stability

Shelf life: Use within
18 Month

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

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

Consult local authorities for recommended exposure limits.

Component	Regulation	Type of listing	Value
Sodium chloride	Dow IHG	TWA	10 mg/m3
2-Methyl-4-isothiazolin-3-one	Dow IHG	TWA	1.5 mg/m3

	Dow IHG	STEL	4.5 mg/m3
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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.

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Avoid gloves made of: Polyvinyl alcohol ("PVA"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

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

Respiratory protection: 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. The following should be effective types of air-purifying respirators: Particulate filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Liquid.
Color	Yellow to brown
Odor	Odorless to mild
Odor Threshold	No test data available
pH	8 - 10.5 5% <i>Measured</i>
Melting point/range	Not applicable
Freezing point	-3.0 - 0.9 °C <i>Calculated.</i>
Boiling point (760 mmHg)	100 °C <i>Literature</i>
Flash point	closed cup flame extinguished; none to boiling
Evaporation Rate (Butyl Acetate = 1)	No test data available
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	17.8 mmHg at 20 °C <i>Literature</i>
Relative Vapor Density (air = 1)	Not determined
Relative Density (water = 1)	1.03 - 1.13 <i>Literature</i>
Water solubility	completely miscible
Partition coefficient: n-octanol/water	log Pow: < 1.82 <i>OECD Test Guideline 117</i>
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	10 cSt at 40 °C <i>Calculated.</i>
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available

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

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Thermally stable at typical use temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Active ingredient decomposes at elevated temperatures.

Incompatible materials: Avoid concentrated oxidizing acids.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials.. Decomposition products can include and are not limited to:.. Sulfur dioxide..

11. TOXICOLOGICAL INFORMATION

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

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 Toxicity Endpoints:

Not classified based on available information.

Acute oral toxicity

Information for the Product:

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

Based on testing for product(s) in this family of materials:
LD50, Rat, male and female, > 5,000 mg/kg No deaths occurred at this concentration.

Information for components:**Disodium hexadecyldiphenyloxide disulfonate**

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

LD50, Rat, male and female, > 5,000 mg/kg

Disodium dihexadecyldiphenyloxide disulfonate

Single dose oral LD50 has not been determined.

For similar material(s): LD50, Rat, male and female, > 5,000 mg/kg

Sulfuric acid disodium salt

LD50, Rat, female, > 2,000 mg/kg OECD Test Guideline 423 No deaths occurred at this concentration.

Sodium chloride

Excessive exposure may cause: Nausea and/or vomiting. LD50, Rat, > 3,550 mg/kg

2-Methyl-4-isothiazolin-3-one

LD50, Rat, female, 183 mg/kg OECD Test Guideline 401

LD50, Rat, male, 235 mg/kg OECD Test Guideline 401

Acute dermal toxicity**Information for the Product:**

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

Based on testing for product(s) in this family of materials:
LD50, Rat, > 2,000 mg/kg No deaths occurred at this concentration.

Information for components:**Disodium hexadecyldiphenyloxide disulfonate**

LD50, Rat, > 2,000 mg/kg No deaths occurred at this concentration.

Disodium dihexadecyldiphenyloxide disulfonate

The dermal LD50 has not been determined.

For similar material(s): LD50, Rat, > 2,000 mg/kg No deaths occurred at this concentration.

Sulfuric acid disodium salt

LD50, > 2,000 mg/kg Estimated.

Sodium chloride

LD50, Rabbit, 10,000 mg/kg

2-Methyl-4-isothiazolin-3-one

LD50, Rat, 242 mg/kg OECD Test Guideline 402

Acute inhalation toxicity

Information for the Product:

No adverse effects are anticipated from single exposure to mist. Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

As product: The LC50 has not been determined.

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

The LC50 has not been determined.

Disodium dihexadecyldiphenyloxide disulfonate

The LC50 has not been determined.

Sulfuric acid disodium salt

LC50, Rat, male and female, 4 Hour, dust/mist, > 2.4 mg/l No deaths occurred at this concentration.

Sodium chloride

LC50, Rat, 1 Hour, dust/mist, > 42 mg/l

2-Methyl-4-isothiazolin-3-one

The LC50 has not been determined.

Skin corrosion/irritation

Not classified based on available information.

Information for the Product:

Based on testing for product(s) in this family of materials:

Brief contact is essentially nonirritating to skin.

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

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

Brief contact is essentially nonirritating to skin.

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

Disodium dihexadecyldiphenyloxide disulfonate

Brief contact is essentially nonirritating to skin.

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

Sulfuric acid disodium salt

Prolonged exposure not likely to cause significant skin irritation.

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

Sodium chloride

Brief contact is essentially nonirritating to skin.

Prolonged contact may cause slight skin irritation with local redness.

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

2-Methyl-4-isothiazolin-3-one

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Information for the Product:

Based on testing for product(s) in this family of materials:

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

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

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

Disodium dihexadecyldiphenyloxide disulfonate

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

Sulfuric acid disodium salt

May cause pain disproportionate to the level of irritation to eye tissues.

May cause slight temporary eye irritation.

Corneal injury is unlikely.

Sodium chloride

May cause eye irritation.

May cause slight temporary corneal injury.

Dust may irritate eyes.

2-Methyl-4-isothiazolin-3-one

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

Sensitization

For skin sensitization:

Not classified based on available information.

For respiratory sensitization:

Not classified based on available information.

Information for the Product:

For skin sensitization:

No specific, relevant data available for assessment.

For respiratory sensitization:

No specific, relevant data available for assessment.

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

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

For respiratory sensitization:

No relevant data found.

Disodium dihexadecyldiphenyloxide disulfonate

For similar material(s):

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

For respiratory sensitization:

No relevant data found.

Sulfuric acid disodium salt

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

For respiratory sensitization:

No relevant data found.

Sodium chloride

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No signs of respiratory sensitization have been reported.

2-Methyl-4-isothiazolin-3-one

Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

Available data are inadequate to determine single exposure specific target organ toxicity.

Disodium dihexadecyldiphenyloxide disulfonate

Available data are inadequate to determine single exposure specific target organ toxicity.

Sulfuric acid disodium salt

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

Sodium chloride

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

2-Methyl-4-isothiazolin-3-one

May cause respiratory irritation.

Route of Exposure: Inhalation

Target Organs: Respiratory Tract

Aspiration Hazard

Not classified based on available information.

Information for the Product:

Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

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

Disodium dihexadecyldiphenyloxide disulfonate

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

Sulfuric acid disodium salt

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

Sodium chloride

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

2-Methyl-4-isothiazolin-3-one

Aspiration into the respiratory system may occur during ingestion or vomiting. Due to corrosivity, tissue damage or lung injury may occur.

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)

Not classified based on available information.

Information for the Product:

Based on product testing:

In animals, effects have been reported on the following organs:

Kidney.

Liver.

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

In animals, effects have been reported on the following organs:

Kidney.

Liver.

Disodium dihexadecyldiphenyloxide disulfonate

For similar material(s):

In animals, effects have been reported on the following organs:

Kidney.

Liver.

Sulfuric acid disodium salt

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

Sodium chloride

Medical experience with sodium chloride has shown a strong association between elevated blood pressure and prolonged dietary overuse. Related effects could occur in the kidneys.

2-Methyl-4-isothiazolin-3-one

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

Carcinogenicity

Not classified based on available information.

Information for the Product:

For similar material(s): Did not cause cancer in laboratory animals.

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

For similar material(s): Did not cause cancer in laboratory animals.

Disodium dihexadecyldiphenyloxide disulfonate

For similar material(s): Did not cause cancer in laboratory animals.

Sulfuric acid disodium salt

Did not cause cancer in laboratory animals.

Sodium chloride

Did not cause cancer in laboratory animals.

2-Methyl-4-isothiazolin-3-one

Did not cause cancer in laboratory animals.

Teratogenicity

Not classified based on available information.

Information for the Product:

Based on product testing: Did not cause birth defects or any other fetal effects in laboratory animals.

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

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

Disodium dihexadecyldiphenyloxide disulfonate

For similar material(s): Did not cause birth defects or any other fetal effects in laboratory animals.

Sulfuric acid disodium salt

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

Sodium chloride

No relevant data found.

2-Methyl-4-isothiazolin-3-one

Did not cause birth defects in laboratory animals.

Reproductive toxicity

Not classified based on available information.

Information for the Product:

Based on product testing: In animal studies, did not interfere with reproduction.

Information for components:

Disodium hexadecyldiphenyloxide disulfonate

In animal studies, did not interfere with reproduction.

Disodium dihexadecyldiphenyloxide disulfonate

For similar material(s): In animal studies, did not interfere with reproduction.

Sulfuric acid disodium salt

In animal studies, did not interfere with reproduction.

Sodium chloride

No relevant data found.

2-Methyl-4-isothiazolin-3-one

In animal studies, did not interfere with reproduction.

Mutagenicity

Not classified based on available information.

Information for the Product:

Based on product testing: In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Information for components:**Disodium hexadecyldiphenyloxydisulfonate**

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

Disodium dihexadecyldiphenyloxydisulfonate

For similar material(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Sulfuric acid disodium salt

In vitro genetic toxicity studies were negative.

Sodium chloride

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

2-Methyl-4-isothiazolin-3-one

Negative in genetic toxicity tests.

12. ECOLOGICAL INFORMATION

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

Toxicity**Acute toxicity to fish**

Material is highly toxic to fish on an acute basis (LC50 between 0.1 and 1.0 mg/L).

LC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, 0.42 mg/l

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), 48 Hour, 13.9 mg/l

Persistence and degradability

Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.

Material is biodegradable according to SDA Semi-Continuous Activated Sludge (SCAS) confirming test for anionic surfactants. Material has inherent, primary biodegradability according to OECD test (s) guidelines (reaches > 20% biodegradation in OECD test(s). Protocols for ready and inherent biodegradability are not suitable for measuring the biodegradability of this product.

10-day Window: Not applicable

Biodegradation: < 60 %

Exposure time: 28 d

Method: OECD Test Guideline 302B or Equivalent

10-day Window: Not applicable

Biodegradation: < 60 %

Exposure time: 28 d

Method: OECD Test Guideline 301D or Equivalent

Bioaccumulative potential

Partition coefficient: n-octanol/water(log Pow): < 1.82 OECD Test Guideline 117

Mobility in soil

No relevant data found.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

TDG

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Mono- and dihexadecyl disulphonated diphenyl oxide, disodium salt)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Mono- and dihexadecyl disulphonated diphenyl oxide, disodium salt

Classification for SEA transport (IMO-IMDG):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Mono- and dihexadecyl disulphonated diphenyl oxide, disodium salt)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Mono- and dihexadecyl disulphonated diphenyl oxide, disodium salt
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):

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(Mono- and dihexadecyl disulphonated diphenyl oxide, disodium salt)
UN number	UN 3082
Class	9
Packing group	III

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

15. REGULATORY INFORMATION

Canadian Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

16. OTHER INFORMATION

Hazard Rating System**NFPA**

Health	Flammability	Instability
3	0	0

Revision

Identification Number: 39737 / A208 / Issue Date: 04/13/2022 / Version: 11.0

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

Legend

Dow IHG	Dow Industrial Hygiene Guideline
STEL	Short term exposure limit
TWA	Time weighted average

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely

Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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 CANADA ULC 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.

CA