



SAFETY DATA SHEET

SWX - SWELLEX SILICONE SWELLING AGENT, BULK

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name SWX - SWELLEX SILICONE SWELLING AGENT, BULK

Product number SWX0GL, SWX0IL, SWX0GG, SWX0IP, SWX0ID, SWX0L, SWX0P, SWX0D, SWX0IG, SWX0IGG, SWX0IGL, SWX0G, SWX0GP

Recommended use of the chemical and restrictions on use

Application Cleaning agent.

Details of the supplier of the safety data sheet

Supplier MICROCARE CORPORATION

Manufacturer MICROCARE CORPORATION
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: + 1 800 638 0125, +1 860-827-0626
Fax: +1 860-827-8105
techsupport@microcare.com

Emergency telephone number

Emergency telephone CHEMTREC 1-800-424-9300 (within the U.S.)
+1 703-741-5970 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Flam. Liq. 1 - H224

Health hazards Not Classified

Human health Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Mild dermatitis, allergic skin rash.

Environmental The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Physicochemical The product is highly flammable. Vapors may form explosive mixtures with air. Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers. Gas or vapor displaces oxygen available for breathing (asphyxiant).

Label elements

SWX - SWELLEX SILICONE SWELLING AGENT, BULK**Pictogram****Signal word**

Danger

Hazard statements

H224 Extremely flammable liquid and vapor.

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
 P233 Keep container tightly closed.
 P240 Ground/ bond container and receiving equipment.
 P241 Use explosion-proof electrical equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information

Safety data sheet available on request. For use in industrial installations only.

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients**Mixtures****1,1,1,2,2,3,3,4,5,5,5-decafluoropentane****30-60%**

CAS number: 138495-42-8

Classification

Not relevant.

HEXAMETHYLDISILOXANE (Methyl siloxane)**30-60%**

CAS number: 107-46-0

Classification

Flam. Liq. 2 - H225

Not relevant.

The full text for all hazard statements is displayed in Section 16.

Composition comments

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200 This product contains zero VOC content per 40CFR 51.100(s)(5)(III) and 69 FR 69304 TSCA: The ingredients of this product are on the TSCA Inventory.

Composition**4. First-aid measures****Description of first aid measures****General information**

Never give anything by mouth to an unconscious person. Do not induce vomiting. Place unconscious person on the side in the recovery position and ensure breathing can take place. If breathing stops, provide artificial respiration.

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Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately.
Skin Contact	Wash skin thoroughly with soap and water. Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Vapors may cause headache, fatigue, dizziness and nausea.
Ingestion	Drowsiness, dizziness, disorientation, vertigo. Nausea, vomiting.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause temporary eye irritation. Irritation and redness, followed by blurred vision.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water, if avoidable.

Special hazards arising from the substance or mixture

Specific hazards	The product is flammable. Heating may generate flammable vapors. Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapors.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Oxides of carbon. Oxides of nitrogen. Fire creates: Toxic gases/vapors/fumes of: Hydrogen fluoride (HF). Carbonyl compounds.
<u>Advice for firefighters</u>	
Protective actions during firefighting	Containers close to fire should be removed or cooled with water.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level. In case of spills, beware of slippery floors and surfaces.
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Environmental precautions

Environmental precautions Contain spillage with sand, earth or other suitable non-combustible material. Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with non-combustible, absorbent material. Do not discharge into drains or watercourses or onto the ground. Contain and absorb spillage with sand, earth or other non-combustible material. Collect spillage with a shovel and broom, or similar and reuse, if possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. It is recommended that gloves are made of the following material: Neoprene.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Provide adequate ventilation. Avoid inhalation of vapors/spray and contact with skin and eyes. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Flammable liquid storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

Reference to other sections. Store away from incompatible materials (see Section 10).

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

1,1,1,2,2,3,4,5,5,5-decafluoropentane

No information available that would effect occupational exposure limit values.

Additional Occupational Exposure Limits

Exposure controls

Protective equipment



Appropriate engineering controls

No specific ventilation requirements. This product must not be handled in a confined space without adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

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Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber).
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.
Hygiene measures	Avoid inhalation of spray mist and contact with skin and eyes. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers. In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. Wear self-contained breathing apparatus with full facepiece.
Thermal hazards	Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapors.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Colorless.
Odor	Slight. Ether.
Odor threshold	No information available.
pH	No information available.
Melting point	<-50.0°C/<-58.0°F
Initial boiling point and range	56.6°C/133.9°F @ 101.3 kPa
Flash point	< -18°C/-0°F Method: PMCC (Pensky-Martens closed cup).
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: Not Determined Lower flammable/explosive limit: 5%
Other flammability	No information available.
Vapor pressure	17.9 kPa @ 25°C
Vapor density	No information available.
Relative density	No information available.
Bulk density	No information available.
Solubility(ies)	Insoluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	0.6 mPa s @ 25°C/77°F
Explosive properties	No information available.

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Refractive index	No information available.
Particle size	Not applicable.
Molecular weight	Not applicable.
Volatility	100%
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapors.
Materials to avoid	Alkali metals. Alkaline earth metals. Powdered metal.
Hazardous decomposition products	Heating may generate the following products: Toxic and corrosive gases or vapors. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO ₂). Carbon monoxide (CO).

11. Toxicological information

Information on toxicological effects

Inhalation	Vapors may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing.
Ingestion	May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.
Skin Contact	Product has a defatting effect on skin. May cause allergic contact eczema.
Eye contact	May cause temporary eye irritation.
Medical Symptoms	Gas or vapor in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting.

Toxicological information on ingredients.

1,1,1,2,2,3,4,5,5,5-decafluoropentane

Acute toxicity - oral

Acute toxicity oral (LD₅₀) 5,000.0
mg/kg)

Species Rat

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

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Acute toxicity dermal (LD₅₀ mg/kg) 5,000.0

Species Rat

ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 114.0

Species Rat

ATE inhalation (vapours mg/l) 114.0

Skin corrosion/irritation

Animal data Not irritating. Rabbit

Human skin model test Data lacking.

Extreme pH Not applicable. Not corrosive to skin.

Serious eye damage/irritation

Serious eye damage/irritation Not irritating. Rabbit

Respiratory sensitization

Respiratory sensitization Data lacking.

Skin sensitization

Skin sensitization Not sensitizing. - Guinea pig: Not sensitizing.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Genotoxicity - in vivo This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

IARC carcinogenicity Not listed.

NTP carcinogenicity Not listed.

OSHA Carcinogenicity Not listed.

Reproductive toxicity

Reproductive toxicity - fertility No evidence of reproductive toxicity in animal studies.

Skin Contact Skin irritation should not occur when used as recommended. May cause defatting of the skin but is not an irritant.

Eye contact May cause eye irritation.

Acute and chronic health hazards There is no evidence that the product can cause cancer.

SWX - SWELLEX SILICONE SWELLING AGENT, BULK**HEXAMETHYLDISILOXANE (Methyl siloxane)****Acute toxicity - inhalation**

Acute toxicity inhalation 106.0
(LC₅₀ vapours mg/l)

Species Rat

12. Ecological Information

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Ecological information on ingredients.**1,1,1,2,2,3,4,5,5,5-decafluoropentane**

Ecotoxicity It is unlikely that the substance will dissolve in water in amounts big enough to have a toxic effect on fish and daphnies.

Acute toxicity - fish LC₅₀, 96 hours: 13.9 mg/l, Onchorhynchus mykiss (Rainbow trout)
LC₅₀, 96 hours: 13 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 11.7 mg/l, Daphnia magna

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 1.72 mg/l, Daphnia magna

Ecological information on ingredients.**1,1,1,2,2,3,4,5,5,5-decafluoropentane**

Acute toxicity - fish LC₅₀, 96 hours: 13.9 mg/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 11.7 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: >120 mg/l, Algae

HEXAMETHYLDISILOXANE (Methyl siloxane)

Toxicity Very toxic to aquatic organisms.

Acute toxicity - fish LC₅₀, 96 hours: 0.46 mg/l mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 72 hours: 0.79 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 96 hours: > 0.93 mg/l, Selenastrum capricornutum

Persistence and degradability

Persistence and degradability No data available.

Biodegradation Degradation (%)
- 4: 28 days

Bioaccumulative potential

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Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

1,1,1,2,2,3,4,5,5,5-decafluoropentane

Bio-Accumulative Potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient Pow: 2.7

Mobility in soil

Mobility No data available.

Other adverse effects

Other adverse effects The product contains a substance or substances that will contribute to global warming (greenhouse effect).

13. Disposal considerations

Waste treatment methods

General information Refer to manufacturer/supplier for information on recovery/recycling. Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Collect and dispose of spillage as indicated in Section 13.

14. Transport information

UN Number

UN No. (IMDG) 1993

UN No. (ICAO) 1993

UN proper shipping name

Proper shipping name (TDG) UN 1993 FLAMMABLE LIQUID, N.O.S. (HEXAMETHYLDISILOXANE), 3, II Limited Quantities (< 1 liter only)

Proper shipping name (IMDG) UN 1993 FLAMMABLE LIQUID, N.O.S. (HEXAMETHYLDISILOXANE), 3, II Limited Quantities (< 1 liter only)

Proper shipping name (ICAO) UN 1993 FLAMMABLE LIQUID, N.O.S. (HEXAMETHYLDISILOXANE), 3, II Limited Quantities (< 1 liter only)

Proper shipping name (DOT) UN 1993 FLAMMABLE LIQUID, N.O.S. (HEXAMETHYLDISILOXANE), 3, II Limited Quantities (< 1 liter only)

Transport hazard class(es)

TDG class 3

TDG label(s) 3

IMDG Class 3

Packing group

TDG Packing Group II

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IMDG packing group II

DOT packing group II

Environmental hazards

Environmentally Hazardous Substance



Special precautions for user

EmS F-E S-E

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

Not listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Not listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Not listed.

SARA 313 Emission Reporting

Not listed.

CAA Accidental Release Prevention

Not listed.

SARA (311/312) Hazard Categories

Acute
Fire

OSHA Highly Hazardous Chemicals

Not listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Not listed.

California Air Toxics "Hot Spots" (A-I)

Not listed.

California Air Toxics "Hot Spots" (A-II)

Not listed.

California Directors List of Hazardous Substances

Not listed.

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Massachusetts "Right To Know" List

Not listed.

Rhode Island "Right To Know" List

Not listed.

Minnesota "Right To Know" List

Not listed.

New Jersey "Right To Know" List

Not listed.

Pennsylvania "Right To Know" List

Not listed.

Inventories

Canada - DSL/NDSL

Yes

US - TSCA

Yes

HEXAMETHYLDISILOXANE (Methyl siloxane)

Present.

1,1,1,2,2,3,4,5,5,5-decafluoropentane

Present.

1,1,1,2,2,3,4,5,5,5-DECAFLUOROPENTANE (CAS# 138495-42-8) is controlled by TSCA Section 5, Significant New Use Rule

(SNUR; 40 CFR 721.5645) The approved uses are: precision and general cleaning, carrier fluid, displacement drying, printed circuit board cleaning, particulate removal and film cleaning, process medium, heat transfer fluid (dielectric and non-dielectric), and test fluid. Processors and users of this substance must also comply with the applicable general SNUR requirements set forth in 40 CFR 721 subpart A, including export notification requirements if applicable (40 CFR 721.20), and the applicable record keeping requirements set forth at 40 CFR 721.125.

1,1,1,2,2,3,4,5,5,5-Decafluoropentane 138495-42-8

The United States Environmental Protection Agency (USEPA) has established a Significant New Use Rule (SNUR) for one of the components in this product. This material contains one or more substances which requires export notification under TSCA Section 12(b) and 40 CFR Part 707 Subpart D:

16. Other information

General information	Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	9/12/2017
Revision	19
Supersedes date	4/20/2017
SDS No.	BULK - SWX
SDS status	Approved.

SWX - SWELLEX SILICONE SWELLING AGENT, BULK

Hazard statements in full H224 Extremely flammable liquid and vapor.
H225 Highly flammable liquid and vapor.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.