

Hexamethyldisiloxane (HMDSO) 0.65 cSt Volatile Silicone Fluid

Safety Data Sheet · complies with OSHA HazCom 2012 (29 CFR 1910.1200) / GHS · CAS 107-46-0

§1 IDENTIFICATION

Product Name	Hexamethyldisiloxane (Volatile Silicone Fluid, 0.65 cSt)
Common Name	HMDSO; MM; hexamethyldisiloxane
Recommended Use	Volatile carrier fluid; solvent and process intermediate; cosmetic and personal-care ingredient
Restrictions on Use	Industrial and professional use only
Manufacturer / Supplier	
Company	RawSource Inc.
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Emergency Telephone	+1 (754) 306-4363 (business hours) — for a chemical emergency also contact your national poison / emergency service

§2 HAZARD(S) IDENTIFICATION

GHS Hazard Classification	Flammable Liquid Category 2; Hazardous to the Aquatic Environment - Acute Category 1; Hazardous to the Aquatic Environment - Chronic Category 1
Signal Word	Danger
Pictogram(s)	Flame; Environment

Hazard statement(s)

H225 : Highly flammable liquid and vapour.
 H400 : Very toxic to aquatic life.
 H410 : Very toxic to aquatic life with long-lasting effects.

Precautionary statement(s)

P210 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 : Keep container tightly closed.
 P240 : Ground and bond container and receiving equipment.
 P241 : Use explosion-proof electrical, ventilating and lighting equipment.
 P242 : Use only non-sparking tools.
 P243 : Take precautionary measures against static discharge.
 P273 : Avoid release to the environment.
 P280 : Wear protective gloves / protective clothing / eye protection / face protection.
 P303 + P361 + P353 : IF ON SKIN (or hair) — Take off immediately all contaminated clothing. Rinse skin with water / shower.
 P370 + P378 : In case of fire — use alcohol-resistant foam or normal protein foam to extinguish.
 P391 : Collect spillage.
 P403 + P235 : Store in a well-ventilated place. Keep cool.
 P501 : Dispose of contents / container to an authorised hazardous or special-waste collection point in accordance with local regulations.

Other Hazards Vapour may travel a considerable distance to a source of ignition and flash back. Containers, even when emptied, may retain flammable vapour.

§3 COMPOSITION / INFORMATION ON INGREDIENTS

Substance Name	Hexamethyldisiloxane
CAS No.	107-46-0
Concentration	99-100 wt%

§4 FIRST-AID MEASURES

If inhaled

If fumes, aerosols or combustion products are inhaled, remove from the contaminated area. Other measures are usually unnecessary.

In case of skin contact

If skin or hair contact occurs, flush skin and hair with running water (and soap if available). Seek medical attention in the event of irritation.

In case of eye contact

If this product comes in contact with the eyes, wash out immediately with water. If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

If swallowed

First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

§5 FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam; dry chemical powder; carbon dioxide; water spray or fog (large fires only)

Unsuitable Extinguishing Media

Avoid water jets onto liquid pools

Specific hazards arising from the chemical

Liquid and vapour are highly flammable and present a severe fire hazard when exposed to heat, flame or oxidisers. Vapour may travel a considerable distance to a source of ignition. On combustion the product may emit carbon monoxide, carbon dioxide, formaldehyde, silicon dioxide and other pyrolysis products typical of burning organic material.

Special protective equipment and precautions for firefighters

Wear full body protective clothing with self-contained breathing apparatus. Cool fire-exposed containers with water spray from a protected location and, if safe to do so, remove containers from the path of fire. Prevent fire-control run-off from entering drains or water courses.

§6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance by using protective equipment.

Environmental precautions

Prevent, by any means available, spillage from entering drains or water courses. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Minor spills: contain and absorb small quantities with vermiculite or other inert absorbent material; wipe up and collect residues in a suitable labelled container. Silicone fluids, even in small quantities, may present a slip hazard. Major spills: clear the area, rope off if necessary, absorb with a suitable absorbent as soon as practically possible and collect for disposal; final cleaning may require use of steam, solvents or detergents.

§7 HANDLING AND STORAGE

Precautions for safe handling

Avoid all personal contact, including inhalation. Use in a well-ventilated area and prevent concentration of vapour in hollows and sumps. Avoid smoking, naked lights, heat or ignition sources. Vapour may ignite on pumping or pouring due to static electricity; earth and secure metal containers when dispensing and use spark-free tools. Containers, even when emptied, may contain explosive vapours — do not cut, drill, grind or weld on or near them.

Conditions for safe storage, including incompatibilities

Store in original containers in an approved flame-proof area, cool, dry and well ventilated. Keep containers securely sealed and protected from physical damage; check regularly for leaks. Do not store in pits, depressions or basements where vapours may be trapped. Store away from oxidising agents. Note: traces of benzene, a carcinogen, may form when silicones are heated in air above 230 degrees C.

§8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Emergency Limits (hexamethyldisiloxane) TEEL-113 ppm; TEEL-2 140 ppm; TEEL-3 150 ppm. No occupational exposure limit established.

Appropriate engineering controls

Use local exhaust or other engineering controls to keep airborne concentrations below any applicable exposure limit; ventilation equipment should be explosion-resistant. Handle in accordance with good industrial hygiene and safety practice and wash hands after work.

Eye/Face Protection	Safety glasses with side shields or chemical goggles
Hand Protection	General protective (e.g. rubber) gloves; avoid PPE that may generate static
Skin/Body Protection	Work clothes, safety shoes or boots; non-static, non-sparking clothing and conductive footwear for large-scale use
Respiratory Protection	Filter gas mask when airborne concentration exceeds the standard; portable respirator for emergencies

§9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Colour	Colourless, transparent
Odour	No data available
Melting Point	< -50 degrees C
Boiling Point	100 degrees C
Flash Point	-1 degrees C
Relative Density (water = 1)	0.76
Viscosity @ 25 degrees C	0.65 cSt
Solubility	Insoluble in water; floats on water

§10 STABILITY AND REACTIVITY

Reactivity	See conditions to avoid and incompatible materials
Chemical Stability	Silicone fluids are stable under normal storage conditions. Hazardous polymerisation will not occur.
Possibility of Hazardous Reactions	Hazardous polymerisation will not occur
Conditions to Avoid	Heat, open flames and other ignition sources; temperatures above 150 degrees C (slow reaction with atmospheric oxygen) and above 300 degrees C (slow depolymerisation to volatile siloxanes)
Incompatible Materials	Oxidising agents; concentrated acids and bases (which cause degradation of the polymer). Boiling water may soften and weaken the material.

Hazardous decomposition products

Combustion or thermal decomposition may yield carbon oxides, silicon dioxide, formaldehyde and other pyrolysis products typical of burning organic material. Traces of benzene, a carcinogen, may form when silicones are heated in air above 230 degrees C.

§11 TOXICOLOGICAL INFORMATION

Acute Toxicity	No data available
Skin Corrosion / Irritation	No data available
Serious Eye Damage / Irritation	No data available
Respiratory or Skin Sensitization	No data available
Carcinogenicity	No data available

§12 ECOLOGICAL INFORMATION

Aquatic Toxicity	Classified Very toxic to aquatic life with long-lasting effects (Aquatic Acute 1 / Aquatic Chronic 1)
Persistence and Degradability	High persistence in water/soil and in air
Bioaccumulative Potential	Medium (BCF = 1300)
Mobility in Soil	Low (KOC = 393.3)

§13 DISPOSAL CONSIDERATIONS

Recycle wherever possible. Consult a licensed waste-management authority for disposal if no suitable treatment or disposal facility can be identified. Dispose of by burial in a land-fill licensed to accept chemical wastes, or by incineration in a licensed apparatus (after admixture with suitable combustible material).

Do not allow wash water from cleaning or process equipment to enter drains; it may be necessary to collect all wash water for treatment before disposal. Disposal to sewer may be subject to local laws and regulations, which should be considered first. Decontaminate empty containers before disposal.

§14 TRANSPORT INFORMATION

UN Number	1993
UN Proper Shipping Name	FLAMMABLE LIQUID, N.O.S.
Transport Hazard Class	3
Marine Pollutant	See aquatic classification (Section 12); very toxic to aquatic life
Special Provisions / Limited Quantity	Special provisions 274; limited quantity 1 L

§15 REGULATORY INFORMATION

Inventory Status	Listed on the China Inventory of Existing Chemical Substances. National inventory status: listed on AIIIC (Australia), DSL (Canada), IECSC (China), EINECS (Europe), ENCS (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA) and TCSI (Taiwan).
United States TSCA Inventory	All components of this product are in compliance with the inventory listing requirements of the US Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

§16 OTHER INFORMATION

Prepared and issued by RawSource Inc. This SDS supersedes any prior version for this material. It relates only to the specific material identified above.

This Safety Data Sheet is provided in good faith and is correct to the best of RawSource's knowledge at the date of publication. It is a guidance for safe handling, use, processing, storage, transport, disposal and release, and is not a warranty or quality specification. It relates only to the specific material identified above. Users must determine the conditions of safe use in their own context.