

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code K1040
Product name DMSO

Company/undertaking identification

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For research use only. Not intended for human or animal diagnostic or therapeutic uses.

SECTION 2: Hazards identification

GHS - Classification

Signal Word
 WARNING

Health hazards
 Not Hazardous

Physical hazards

GHS Physical Hazard 1	Flammable liquids
GHS Physical Hazard Category Number	Category 4

Hazard Statements
 H227 - Combustible liquid

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P370 + P378 - In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction

Principle Routes of Exposure**Potential Health Effects****eyes**

Mild eye irritation.

Skin

Mild skin irritation. Components of the product may be absorbed into the body through the skin.

Specific effects**Carcinogenic effects**

None

Mutagenic effects

None

Reproductive toxicity

None

Sensitization

No sensitization responses were observed

Target Organ Effects

No known effects under normal use conditions

HMIS

Health	1
Flammability	2
Reactivity	0

SECTION 3: Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
dimethylsulfoxide	67-68-5	200-664-3	95-100

We recommend handling all chemicals with caution.

SECTION 4: First aid measures**Skin contact**

Wash off immediately with plenty of water. If symptoms occur, obtain medical advice.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician if necessary.

Ingestion

Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.

inhalation

Remove to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

Notes to Physician

Treat symptomatically.

SECTION 5: Firefighting measures**Suitable extinguishing media**Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures**Personal precautions**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use personal protection equipment.

Methods for cleaning up

Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

See Section 12 for more information.

SECTION 7: Handling and storage

Handling	Avoid contact with skin and eyes. Always wear recommended Personal Protective Equipment.
Storage	Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not store near combustible materials. Keep in properly labeled containers.

SECTION 8: Exposure controls/personal protection

Exposure Limits

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
dimethylsulfoxide	None	None	None	None

Engineering measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Hand protection	Impervious butyl rubber gloves. Nitrile gloves are not recommended. Some brands of Nitrile gloves have breakthrough times of five minutes.
Eye protection	Wear safety glasses with side shields (or goggles).
Skin and Body Protection	Lightweight protective clothing.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Prevent product from entering drains.

SECTION 9: Physical and chemical properties

General information

Form	Liquid	
Appearance	No information available	
Odor	No information available	
Boiling point / boiling range	°C 188 - 190	°F 370 - 374
Melting point / melting range	°C 18 - 19	°F 64.4 - 66.2
flash point	°C 87 - 89	°F 188.6 - 192.2
Autoignition Temperature	°C 214 - 216	°F 417.2 - 420.8
Oxidizing properties	No information available	
Water solubility	miscible	
Upper explosion limit	61% - 64%	
Lower explosion limit	2.4% - 2.8%	

PH Range

6-8

SECTION 10: Stability and reactivity

Stability	Stable under normal conditions.
Materials to avoid	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Sulphur oxides. Carbon oxides.
polymerization	Hazardous polymerization does not occur.

SECTION 11: Toxicological information

Acute Toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
dimethylsulfoxide	14500 mg/kg Oral LD50	>40000 mg/kg bw	>5000 mg/l

Principle Routes of ExposurePotential Health Effects

eyes	Mild eye irritation
Skin	Mild skin irritation Components of the product may be absorbed into the body through the skin.
inhalation	No information available
Ingestion	No information available
Carcinogenic effects	None
Mutagenic effects	None
Reproductive toxicity	None
Sensitization	No sensitization responses were observed

SECTION 12: Ecological information

Ecotoxicity	Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.
Mobility	completely soluble
Biodegradation	Inherently biodegradable
Bioaccumulation	Material does not bioaccumulate

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
dimethylsulfoxide	Skeletonema costatum EC5012350 - 25500 mg/L (96 h)	Daphnia species EC50=7000 mg/L (24 h)			logPow-2.03

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA

Proper shipping name No dangerous good in sense of these transport regulations.
Hazard Class None
Subsidiary class None
Packing group None
UN-No none

SECTION 15: Regulatory information

Component	TSCA
dimethylsulfoxide 67-68-5 (95-100)	Listed

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contains HAPs.

US State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
dimethylsulfoxide	-	-	-	-	-

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

B3 - Combustible liquid



This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

Reason for revision SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE"

End of Safety Data Sheet