
1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Dimethylsulfoxide
Synonyms	DMSO, Methyl sulfoxide
Grade	ACS, HPLC, Dehydrous
Company	Anaqua Chemicals Supply
	1510 Eldridge Parkway, Suite 110-268 Houston, TX 77077, USA
Telephone	(281)-668-0032
Fax	(281)-668-0033

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Formula	C ₂ H ₆ OS
CAS-No.	67-68-5
Ec-No.	200-664-3
Concentration	> 99.9 %

3. HAZARDS IDENTIFICATION

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

This substance is not classified as dangerous

4. FIRST AID MEASURES

Inhalation	If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Rinse mouth with water. Consult a physician immediately.
Skin Contact	Immediately wash off with plenty of water for at least 15 minutes. Consult a physician.
Eye Contact	Rinse through with plenty of water for at least 15 minutes. Consult a physician.
Note to Physician	Treat symptomatically include:, Nausea, Fatigue, Headache

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
Specific hazards during fire fighting	Carbon oxides, Sulphur oxides
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for fighting if necessary. Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Avoid breathing vapors, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods for cleaning up	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling	Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
Storage	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. hygroscopic

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Occupational exposure controls

Engineering Measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
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Personal protective Equipment

Respiratory protection	Use air-purifying full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.
Skin protection	Wear appropriate protective gloves.
Eye protection	Tightly fitting safety glasses.
Body protection	Protective clothes should be selected specifically for the work place according to concentration and quantity of the chemical handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Colorless
pH	No data available
Melting point	15-19 °C
Boiling point	189 °C
Flash point	87 °C - closed cup
Lower explosion limit	3.5 % (V)
Upper explosion limit	42 % (V)
Vapor pressure	0.55 hPa at 20.0 °C (68.0 °F)
Density	1.1 g/mL
Water solubility	Completely soluble
Partition coefficient: n-octanol/ water	log Pow: -2.03
Molecular weight	78.13

10. STABILITY AND REACTIVITY

Storage stability	No information available
Conditions to avoid	Heat, flames and sparks
Materials to avoid	Acid chlorides, Phosphorus halides, Strong acids, Strong oxidizing agents, Strong reducing agents
Hazardous decomposition products	No information available

11. TOXICOLOGICAL INFORMATION

Acute toxicity	LD50 Oral 14,500 mg/kg (Rat) LD50 Dermal > 5,000 mg/kg (Rabbit) LC50 Inhalation 40250 ppm (Rat) 4 h
Skin irritation	No skin irritation (Rabbit) 24 h
Eye irritation	Mild eye irritation (Rabbit)
Sensitization	No data available
Germ cell mutagenicity	Genotoxicity In vitro – mouse- lymphocyte (Cytogenetic analysis) Genotoxicity In vitro – mouse- lymphocyte (Mutation In mammalian somtic cells) Genotoxicity In vitro – rat- lymphocyte (Cytogenetic analysis) Genotoxicity In vitro – mouse- lymphocyte (DNA damage)
Carcinogenicity	Rat-: Tumorigenic: Equivocal tumorigenic agent (RTECS). Skin and Appendages: Tumors. Mouse: Tumorigenic: Equivocal tumorigenic agent (RTECS). Leukaemia Skin and Appendages: Tumors. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	Rat – Intraperitoneal: Effects on Fertility: Abortion. Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Rat – Subcutaneous: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total no. of implants). Effects on Fertility: Litter size (e.g.: # fetuses per litter; measured before birth). Mouse – Oral: Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system. Developmental Toxicity - mouse - Intraperitoneal Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.
Potential health effects	Inhalation: May be harmful if inhaled. May cause respiratory tract irritation. Ingestion: May be harmful if swallowed. Skin: May be harmful if absorbed through skin. May cause skin irritation. Eyes: May cause eye irritation. Aggravated Medical Condition: Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.
Exposure Symptoms	Effects due to ingestion may include:, Nausea, Fatigue, Headache
Additional Information	RTECS: PV6210000

12. ECOLOGICAL INFORMATION

Persistence and degradability	No available information
Ecotoxicity	
Toxicity to fish	LC50 34,000 mg/l (Pimephales promelas (fathead minnow)) 96 h LC50 35,000 mg/l (Oncorhynchus mykiss (rainbow trout)) 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 27,500 mg/l (Daphnia pulex (Water flea))
Toxicity to algae	EC50 >400,000 mg/l (Lepomis macrochirus (Bluegill)) 96 h
Mobility	No available information

13. DISPOSAL CONSIDERATIONS

Product	This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

IATA, IMDG, ADR/RID

UN-Number: - Class: - Packing group: -

Proper shipping name: Not dangerous goods

EMS-No. -

15. REGULATORY INFORMATION

No hazard statements for this non dangerous substance or mixture

No precautionary statements for this non dangerous substance or mixture

No GHS-labeling is required for this non dangerous substance or mixture

The product does not need to be labelled in accordance with EC directives or respective national laws.

16. OTHER INFORMATION

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