

## 1. IDENTIFICATION

**IDENTIFIER (AS LABELED):** DMSO (dimethyl sulfoxide)  
**RECOMMENDED USE/RESTRICTION:** Laboratory chemicals  
**MANUFACTURER'S NAME:** Belle Chemical  
**ADDRESS:** 501 N 22<sup>nd</sup> St  
Billings, MT 59101  
**EMERGENCY PHONE:** (406) 672-5899  
**BUSINESS PHONE:** 1-877-522-2233

Health	0
Fire	1
Reactivity	0

## 2. HAZARD(S) IDENTIFICATION

**HAZARD CLASSIFICATION:** Flammable Liquids (4)  
**SIGNAL WORD:** Warning  
**HAZARD STATEMENT(S):** Combustible liquid.  
**SYMBOL(S):** No pictogram.  
**PRECAUTIONARY STATEMENT(S):** Keep away from heat/sparks/open flames/hot surfaces. No smoking.

## 3. COMPOSITION/INFORMATION ON INGREDIENT(S)

CHEMICAL NAME	CAS #	% w/w	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA			NIOSH
			TLV TWA	STEL	PEL	STEL	IDLH	REL
Dimethyl Sulfoxide	67-68-5	> 99.9%	NE	NE	NE	NE	NE	NE

## 4. FIRST-AID MEASURES

**INHALATION:** Remove person to fresh air and keep comfortable for breathing. If unwell call POISON CONTROL and seek medical attention.  
**EYES:** Immediately hold eyelids open and flush with a steady stream of water for 15-20 minutes. Seek medical attention if irritation persists.  
**SKIN:** Immediately wash affected area with soap and water, removing contaminated clothing. If irritation persists, seek medical attention.  
**INGESTION:** Rinse mouth, **DO NOT INDUCE VOMITING** unless directed by a medical professional. Seek medical attention if unwell.

## 5. FIRE-FIGHTING MEASURES

**SUITABLE EXTINGUISHING MATERIALS:** Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

**SPECIAL EQUIPMENT:** Avoid use of water streams to prevent spreading of fire. Wear full protective clothing and SCBA.

**SPECIFIC HAZARDS:** When heated to decomposition, this product may emit toxic fumes/oxides, smoke and combustion products.

## 6. ACCIDENTAL RELEASE MEASURES

**SPILL AND LEAK RESPONSE:** Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Do not allow material to discharge into controlled waterways. Wear PPE according to Section 8.

## 7. HANDLING and STORAGE

**SAFE HANDLING:** Keep away from naked flames/heat. Keep away from ignition sources/sparks. Comply with legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain.

**SAFE STORAGE:** Store in cool, dry, well-ventilated area away from incompatible materials, sources of heat and ignition. Keep container tightly closed and locked up.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use with adequate ventilation.

**RESPIRATORY:** NIOSH-approved respirator

**EYE:** Face shield and goggles

**HAND:** Hand protection made of compatible material

**BODY:** Appropriate for exposure or work environment

**OTHER PROTECTIVE MEASURES:** Eye wash fluid should be accessible in case of eye irritation due to exposure

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Clear Solution

**ODOR:** None

**ODOR THRESHOLD:** Not Established

**PH:** Not Established

**MELT/FREEZE POINT:** 68°F (99%)

**BOILING POINT/RANGE:** Not established

**FLASH POINT:** 188.6°F (99%)

**EVAPORATION RATE:** Not Established

**FLAMMABILITY:** Not established

**UEL / LEL:** 42%/ 2.6%

**VAPOR PRESSURE:** Not Established

**VAPOR DENSITY:** 2.70

**RELATIVE DENSITY:** Not Established

**SOLUBILITY(IES):** Water

**PARTITION COEFFICIENT:** Not Established

**AUTO-IGNITION:** 573.8°F

**DECOMPOSITION TEMP:** Not Established

**VISCOSITY:** Not Established

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** Vapors may form explosive mixture with air

**CHEMICAL STABILITY:** Stable under normal conditions

**CONDITIONS TO AVOID:** Excessive heat, ignition sources, open flame

**INCOMPATIBLE MATERIALS:** Acetalidene, organic halides, perchlorates, acid chlorides, nonmetallic halides, iron(III) compounds, nitrates

**HAZARDOUS POLYMERIZATION:** Will not occur

#### 11. TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL INFORMATION:** Causes serious eye irritation. May cause drowsiness or dizziness. Inhalation of very high concentrations may cause CNS depression (primarily fatigue, dizziness, and loss of concentration, with collapse, coma and death in cases of severe overexposure).

**NTP/IARC SUSPECTED CARCINOGEN:** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probably, possible or confirmed human carcinogen by IARC.

**SYMPTOMS OF EXPOSURE:** May cause drowsiness or dizziness, CNS depression.

**TOXICITY ESTIMATE(S):**

ORAL (RAT):	> 28,300 mg/kg
INHALATION (RAT):	> 5.33 mg/L (4hr, dust/mist)
DERMAL (RABBIT):	> 40,000 mg/kg

#### 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:** Not considered toxic.

**PERSISTENCE AND DEGRADABILITY:** Biodegradable in soil, anaerobic conditions and water.

**BIOACCUMULATIVE POTENTIAL:** Does not bioaccumulate.

**MOBILITY IN SOIL:** Not tested as a whole

**OTHER ADVERSE EFFECTS:** None

#### 13. DISPOSAL CONSIDERATIONS

**SAFE HANDLING AND DISPOSAL:** Dispose of contents/container in accordance with licensed collector's sorting instructions. Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

#### 14. TRANSPORTATION INFORMATION

**UN NUMBER/SHIPPING NAME:** Not regulated

**TRANSPORT HAZARD CLASS(ES):** Not regulated

**DOT:** Not regulated

**PACKING GROUP:** Not regulated

**ENVIRONMENTAL HAZARDS:** No

**TRANSPORT IN BULK:** Not regulated by ship type and pollution category

**SPECIAL PRECAUTIONS:** None.

#### 15. REGULATORY INFORMATION

**SARA 302:** No requirements.

**SARA 311/312:** Fire, Chronic

**SARA 313:** No requirements

**TSCA STATUS:** All constituents.

**CALIFORNIA PROPOSITION 65:** No requirements.

**STATE REGULATIONS:** No requirements

#### 16. OTHER INFORMATION

The information and recommendations herein are taken from data contained in independent industry recognized references including NIOSH, OSHA, ANSI, and NFPA. No guarantee, express or implied, and no liability is assumed by Belle Chemical in conjunction with the use of this information.

**DATE OF PREPARATION:** 01/22/2023