

SAFETY DATA SHEET

Section 1: Company and Chemical Identification

Epicentre® an Illumina® Company
5602 Research Park Blvd., MADISON WI 53719
Emergency Tel: 608-258-3080 or 800-284-8474 7:30-4:30 Central Time Zone

MOPS as a constituent of Thermostable RNA Ligase 10X Reaction Buffer contained in catalog item TRL8101K

Section 2: Composition and Information on Hazardous Ingredients

<u>Component</u>	<u>CAS No</u>	<u>EC#</u>	<u>% Wt</u>
MOPS	1132-61-2	214-478-5	10.5

Chemical name: 4-Morpholinopropanesulfonic acid
 $C_7H_{15}NO_4S$ 209.26 g/mol

Section 3: Hazards Identification

OSHA: irritant

HMIS Classification: Health Hazard: 2 Flammability: 1 Physical hazards: 0

NFPA Rating: Health Hazard: 2 Fire : 1 Reactivity Hazard: 0

Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Section 4: First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15-20 minutes, occasionally lifting upper and lower eyelids. Obtain medical assistance. Remove contact lenses before treatment.

Skin: Obtain medical assistance. Flush skin with plenty of water for at least 15-20 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Obtain medical assistance. Do **not** induce vomiting unless directed by medical personnel. If conscious and alert, rinse mouth and drink 2-4 cupfuls water. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical assistance.

Notes to Physician: Treat symptomatically and supportively.

Section 5: Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand mode, MSHA/NIOSH (approved or equivalent), and wear full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. runoff from fire control or dilution water may cause pollution.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistance foam. Use agent most appropriate to extinguish the fire.

Flash point: 110°C (230°F) closed cup method

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions given in Section 8. If liquid evaporates, avoid dusty conditions. Provide ventilation. Follow local, regional and national disposal regulations and requirements. Avoid direct contact with skin or eyes. Store solution as directed in instructions and away from incompatible reagents.

Section 7: Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Avoid heat. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8: Exposure Controls/Personal Protection

Engineering controls: Facilities storing or using this material should be equipped with an eyewash facility and safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure limits: No OSHA Final or vacated PELs, not NIOSH or ACGIH listed. Avoid repeated exposure. Chronic exposure

Respiratory protection: Follow respirator rules 29CFR1910.134, European Standard EN149 or other appropriate standard.

Use a NIOSH/MSHA or European EN 149 approved respirator if irritation or other symptoms are experienced.

Personal Protective Equipment: Wear appropriate clothing and gloves to prevent skin exposure. Wear protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29CFR1910.133 or EN 166.

Contains no substances with occupational exposure limit values.

Section 9: Physical and Chemical Properties

Appearance: clear solution

pH 2.5 - 4 at 209 g/l at 25 °C (77 °F)

Melting point of solid: 277 °C (531 °F)

Boiling point no data available

Flash point of solid: 110 °C (230 °F) - closed cup

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Section 10: Stability and Reactivity

Stability: Stable under normal conditions.

Incompatibility: strong oxidizing agents and strong bases

Hazardous decomposition products (fire): carbon, nitrogen and sulfur oxides

Hazardous polymerization: Will not occur

Section 11: Toxicological Information

Acute Effects: LD50 Oral - rat - > 2,000 mg/kg

Chronic Effects: N/A

Irritation Data: N/A

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Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Section 12: Ecological Information

Ecotoxicity: EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h

Degradation: N/A

Section 13: Disposal Considerations

Dispose material and container in accordance with appropriate federal, state and local laws and regulations. Recover and recycle if possible. Processed material may require different disposal methods.

Section 14: Transport Information

No special considerations are known. Not a DOT/IATA/IMDG controlled material.

Section 15: Regulatory Information

CAS#
OSHA: Irritant
Exposure limits: None
TSCA Inventory: On TSCA Inventory
DSL: On Canadian DSL
NDSL: No
SARA 302: NO RQ or TPQ
SARA 313: NO
SARA 311/312 Acute Health Hazard
RCRA: No
CERCLA: No
Australian Hazchem code: No
Chemical Weapons Convention: No
CDTA: No
Poison schedule: No
Pennsylvania Right To Know Components: 4-Morpholinopropanesulphonic acid CAS-No. 1132-61-2
New Jersey Right To Know Components: 4-Morpholinopropanesulphonic acid CAS-No. 1132-61-2
California Prop. 65: This product does not cause cancer, birth, or any other reproductive effects

Section 16: Other Information

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