

# Manganous Sulfate Solution, for Dissolved Oxygen

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 03/26/2015

Version: 1.0

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Manganous Sulfate Solution, for Dissolved Oxygen  
Product code : LC16570

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For laboratory and manufacturing use only.

#### 1.3. Details of the supplier of the safety data sheet

LabChem Inc  
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court  
Zelienople, PA 16063 - USA  
T 412-826-5230 - F 724-473-0647  
[info@labchem.com](mailto:info@labchem.com) - [www.labchem.com](http://www.labchem.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

STOT RE 2 H373  
Aquatic Chronic 2 H411  
Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS08



GHS09

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : H373 - May cause damage to organs (central nervous system) through prolonged or repeated exposure (Inhalation)  
H411 - Toxic to aquatic life with long lasting effects  
Precautionary statements (GHS-US) : P260 - Do not breathe mist  
P273 - Avoid release to the environment  
P314 - Get medical advice and attention if you feel unwell  
P391 - Collect spillage  
P501 - Dispose of contents/container to comply with local, state and federal regulations

#### 2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

# Manganous Sulfate Solution, for Dissolved Oxygen

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	Classification (GHS-US)
Water	(CAS No) 7732-18-5	63.6	Not classified
Manganous Sulfate, Monohydrate, ACS	(CAS No) 10034-96-5	36.4	STOT RE 2, H373 Aquatic Chronic 2, H411

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes damage to organs (central nervous system) (Inhalation).
- Chronic symptoms : Disturbed motor response. Emotional instability. Feeling of weakness.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Protective equipment : Safety glasses. Gloves.
- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing mist.

# Manganous Sulfate Solution, for Dissolved Oxygen

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container closed when not in use.
Incompatible products	: Strong bases.
Incompatible materials	: Sources of ignition. Direct sunlight.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Manganous Sulfate Solution, for Dissolved Oxygen		
ACGIH	Not applicable	
OSHA	Not applicable	
Manganous Sulfate, Monohydrate, ACS (10034-96-5)		
ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³
OSHA	OSHA PEL (Ceiling) (mg/m³)	5 mg/m³
Water (7732-18-5)		
ACGIH	Not applicable	
OSHA	Not applicable	

### 8.2. Exposure controls

Appropriate engineering controls	: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Respiratory protection	: Wear appropriate mask.
Other information	: Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: pink
Odor	: None.
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 1.27 g/ml
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available

# Manganous Sulfate Solution, for Dissolved Oxygen

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong bases.

### 10.6. Hazardous decomposition products

Sulfur compounds.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact

Acute toxicity : Not classified

Manganous Sulfate, Monohydrate, ACS (10034-96-5)	
LD50 oral rat	2150 mg/kg
ATE US (oral)	2150.000 mg/kg body weight
Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000.000 mg/kg body weight

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : May cause damage to organs (central nervous system) through prolonged or repeated exposure (Inhalation).

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Chronic symptoms : Disturbed motor response. Emotional instability. Feeling of weakness.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects.

# Manganous Sulfate Solution, for Dissolved Oxygen

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 12.2. Persistence and degradability

#### Manganous Sulfate Solution, for Dissolved Oxygen

Persistence and degradability	May cause long-term adverse effects in the environment.
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#### Manganous Sulfate, Monohydrate, ACS (10034-96-5)

Persistence and degradability	May cause long-term adverse effects in the environment.
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#### Water (7732-18-5)

Persistence and degradability	Not established.
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### 12.3. Bioaccumulative potential

#### Manganous Sulfate Solution, for Dissolved Oxygen

Bioaccumulative potential	Not established.
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#### Manganous Sulfate, Monohydrate, ACS (10034-96-5)

Bioaccumulative potential	Not established.
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#### Water (7732-18-5)

Bioaccumulative potential	Not established.
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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

### Additional information

Other information : No supplementary information available.

### ADR

No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Manganous Sulfate Solution, for Dissolved Oxygen

SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Manganous Sulfate, Monohydrate, ACS	CAS No 10034-96-5	36.4
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Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

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## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Manganous Sulfate, Monohydrate, ACS (10034-96-5)

Listed on United States SARA Section 313

SARA Section 311/312 Hazard Classes

Delayed (chronic) health hazard

## 15.2. International regulations

### CANADA

#### Manganous Sulfate, Monohydrate, ACS (10034-96-5)

Not listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

#### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

### EU-Regulations

No additional information available

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

### National regulations

#### Manganous Sulfate, Monohydrate, ACS (10034-96-5)

Listed on the Canadian IDL (Ingredient Disclosure List)

#### Water (7732-18-5)

Not listed on the Canadian IDL (Ingredient Disclosure List)

## 15.3. US State regulations

This product contains no chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

## SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard

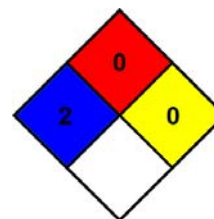
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 0 - Materials that will not burn.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



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## Safety Data Sheet

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### HMIS III Rating

Health	: 2 Moderate Hazard - Temporary or minor injury may occur * - Chronic (long-term) health effects may result from repeated overexposure
Flammability	: 0 Minimal Hazard - Materials that will not burn
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal Protection	: C C - Safety glasses, Gloves, Synthetic apron

SDS US (GHS HazCom 2012)

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