

01/11/2024

### Kit Components

Product code	Description
<b>V4054</b>	<b>BRK Kinase Enzyme System</b>

Components:

Turnkey16	5x Reaction Buffer A Kinase Substrate
K03-09	5x Reaction Buffer A
D86-09B	DTT
M40-09-25	2.5 M MnCl <sub>2</sub>



**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 01/11/2024

Reviewed on 08/08/2023

**1 Identification****Product identifier****Trade name:** DTT**Article number:** D86-09B**Application of the substance / the mixture** For Laboratory Use**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification****Classification of the substance or mixture**

Eye Irritation 2A H319 Causes serious eye irritation.

**Label elements****GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms**

GHS07

**Signal word** Warning**Hazard statements**

Causes serious eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

Wear eye protection / face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

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**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = \*2

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Irritant****Primary route(s) of entry:** Dermal**Target Organ(s):** Not applicable or unknown**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

## 3 Composition/information on ingredients

**Chemical characterization: Mixtures****Description:**

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:**

3483-12-3 DL-Dithiothreitol

1-5%

**Additional information:** For the wording of the listed risk phrases refer to section 15.

## 4 First-aid measures

**Description of first aid measures**

**After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** If the patient feels unwell or is concerned, obtain medical advice.

**Information for doctor:****Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## 5 Fire-fighting measures

**Extinguishing media****Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

None known

No further relevant information available.

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Advice for firefighters No special advice.

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## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Remove persons from danger area.

Wear protective clothing.

### Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

### Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

## 7 Handling and storage

### Handling:

Precautions for safe handling No special precautions are necessary if used correctly.

Information about protection against explosions and fires: The product is not flammable.

### Conditions for safe storage, including any incompatibilities

### Storage:

Requirements to be met by storerooms and receptacles: Do not store below -20°C. Protected from light.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

## 8 Exposure controls/personal protection

### Control parameters

### Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

### Exposure controls

### Personal protective equipment:

### General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

Breathing equipment: Not required.

Protection of hands: Not required.

### Material of gloves

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to,

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chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:**

Safety glasses

Use equipment for eye protection tested and approved under government NIOSH standards.

### 9 Physical and chemical properties

**Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

**Change in condition**

<b>Melting point/Melting range:</b>	0 °C (32 °F)
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.

<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Decomposition temperature:</b>	Not determined.

<b>Ignition temperature:</b>	Product is not selfigniting.
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<b>Danger of explosion:</b>	Product does not present an explosion hazard.
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**Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.

<b>Density at 20 °C (68 °F):</b>	1 g/cm <sup>3</sup> (8.345 lbs/gal)
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<b>Relative density</b>	Not determined.
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<b>Vapor density</b>	Not determined.
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<b>Evaporation rate</b>	Not determined.
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**Solubility in / Miscibility with**

<b>Water:</b>	Fully miscible.
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<b>Partition coefficient (n-octanol/water):</b>	Not determined.
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**Viscosity:**

<b>Dynamic at 20 °C (68 °F):</b>	0.0952 mPas
<b>Kinematic:</b>	Not determined.

**Solvent separation test**

<b>Water:</b>	98.5 %
<b>VOC content:</b>	0.00 %

<b>Solids content:</b>	1.5 %
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<b>Other information</b>	No further relevant information available.
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## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:** No data available

**Primary irritant effect:**

**on the skin:** Causes skin irritation.

**on the eye:** Irritating effect.

**Sensitization:**

**In case of skin contact:** not sensitising

**In case of inhalation:** not sensitising

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

OECD test guideline 471, Ames test.

Irritant

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** Not harmful to the aquatic environment

**Persistence and degradability**

Not available

No further relevant information available.

**Bioaccumulative potential**

Not known

No further relevant information available.

**Mobility in soil** No further relevant information available.

**Ecotoxicological effects:**

**Remark:** Not available

**Additional ecological information:**

**General notes:** No data available.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

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vPvB: Not applicable.

Other adverse effects No further relevant information available.

## 13 Disposal considerations

### Waste treatment methods

#### Recommendation:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

## 14 Transport information

UN-Number Not hazardous for transportation

DOT, ADR, ADN, IMDG, IATA Not applicable

UN proper shipping name None

DOT, ADR, ADN, IMDG, IATA Not applicable

Transport hazard class(es) None

DOT, ADR, ADN, IMDG, IATA  
Class

Not applicable

Packing group

DOT, ADR, IMDG, IATA

None

Not applicable

Environmental hazards:

Marine pollutant:

No

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of  
MARPOL 73/78 and the IBC Code

Not applicable.

UN "Model Regulation":

Not applicable

## 15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture  
Sara

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) Inventory:

All components have the value ACTIVE.

Hazardous Air Pollutants

None of the ingredients are listed.

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**Proposition 65****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**New Jersey Right-to-Know List:**

None of the ingredients are listed.

**Pennsylvania Right-to-Know List:**

None of the ingredients are listed.

**Carcinogenicity categories****EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value)**

None of the ingredients are listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Signal word** Warning**Hazard statements**

Causes serious eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

Wear eye protection / face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

**Chemical safety assessment****Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other information**

\*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing SDS:**

Promega Corporation

Chemical Regulatory Department

2800 Woods Hollow Road

Madison, WI

Ph: (608) 274-4330

chemicalregulatory@promega.com

**Contact:****Date of preparation / last revision** 01/11/2024

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**Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A*

US

## Safety Data Sheet

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### 1 Identification

**Product identifier**
**Trade name:** 2.5 M MnCl<sub>2</sub>
**Article number:** M40-09-25

**Application of the substance / the mixture** For Laboratory Use

**Details of the supplier of the safety data sheet**
**Manufacturer/Supplier:**

Promega Corporation

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

1-800-356-9526 or (608)-274-4330

**Information department:** SDS author: [chemicalregulatory@promega.com](mailto:chemicalregulatory@promega.com)
**Emergency telephone number:**

For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

**Classification of the substance or mixture**


GHS08 Health hazard

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to the brain through prolonged or repeated exposure.



GHS05 Corrosion

Eye Damage 1

H318 Causes serious eye damage.



GHS07

Acute Toxicity - Oral 4

H302 Harmful if swallowed.

**Label elements**
**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: 2.5 M MnCl<sub>2</sub>

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**Hazard pictograms**

GHS05 GHS07 GHS08

**Signal word** Danger**Hazard-determining components of labeling:**

Manganese (II) Chloride

**Hazard statements**

Harmful if swallowed.

Causes serious eye damage.

May cause damage to the brain through prolonged or repeated exposure.

**Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear eye protection / face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a poison center/doctor.

Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 3

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = \*3

Fire = 0

Reactivity = 0

**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):**

Toxic

Highly Toxic

Cumulative Effects (Chronic hazard)

**Primary route(s) of entry:**

Dermal

Inhalation

Oral

**Target Organ(s):**

May affect Nervous system (Neurotoxin)

Affects Pulmonary system (Lungs)

**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

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Trade name: 2.5 M MnCl<sub>2</sub>

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## 3 Composition/information on ingredients

### Chemical characterization: Mixtures

#### Description:

The product is made up of a mixture of hazardous and non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

#### Dangerous components:

7773-01-5	Manganese (II) Chloride	25-50%
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**Additional information:** For the wording of the listed risk phrases refer to section 15.

## 4 First-aid measures

### Description of first aid measures

#### General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

**After inhalation:** If the patient feels unwell or is concerned, obtain medical advice.

**After skin contact:** If skin irritation continues, consult a doctor.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** Seek immediate medical advice.

#### Information for doctor:

**Most important symptoms and effects, both acute and delayed**

None

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## 5 Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

None known

No further relevant information available.

**Advice for firefighters** In the case of fire, wear respiratory protective equipment and chemical protective suit.

**Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Remove persons from danger area.

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

#### Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to Section 13.

Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 13 for disposal information.

## 7 Handling and storage

**Handling:****Precautions for safe handling**

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Information about protection against explosions and fires:**

Keep respiratory protective device available.

The product is not flammable.

**Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** Do not store below -20°C. Protected from light.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep receptacle tightly sealed.**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

**Control parameters****Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during the creation were used as basis.**Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:** Not required.**Material of gloves**

Gloves impermeable to the specific chemical substance.

Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider

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specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Eye protection:**

Tightly sealed goggles

Use equipment for eye protection tested and approved under government NIOSH standards.

## 9 Physical and chemical properties

**Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)
<b>Flash point:</b>	Not applicable.

**Flammability (solid, gaseous):**

Not applicable.

**Decomposition temperature:**

Not determined.

**Ignition temperature:**

Product is not selfigniting.

**Danger of explosion:**

Product does not present an explosion hazard.

**Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.

**Density at 20 °C (68 °F):**1.62291 g/cm<sup>3</sup> (13.54318 lbs/gal)**Relative density**

Not determined.

**Vapor density**

Not determined.

**Evaporation rate**

Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**Dynamic:** Not determined.

**Kinematic:** Not determined.

**Solvent separation test**

**Water:** 68.5 %

**VOC content:** 0.00 %

**Solids content:** 42.3 %

**Other information**

No further relevant information available.

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## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

**7773-01-5 Manganese (II) Chloride**

Oral	LD50	250 mg/kg (Rat)
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**Primary irritant effect:**

**on the skin:** Causes skin irritation.

**on the eye:** Causes serious eye damage.

**Sensitization:**

In case of skin contact: not sensitising

In case of inhalation: not sensitising

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

OECD test guideline 471, Ames test.

Harmful

Irritant

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

**NTP (National Toxicology Program)**

None of the ingredients are listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** Not harmful to the aquatic environment

**Persistence and degradability**

Not available

No further relevant information available.

**Bioaccumulative potential**

Not known

No further relevant information available.

**Mobility in soil** No further relevant information available.

**Ecotoxicological effects:**

**Remark:** Not available

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**Additional ecological information:****General notes:** Must not reach bodies of water or drainage ditch undiluted or unneutralized.**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods****Recommendation:**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

**UN-Number** Not hazardous for transportation**DOT, ADR, ADN, IMDG, IATA** Not applicable**UN proper shipping name****DOT, ADR, ADN, IMDG, IATA** Not applicable**Transport hazard class(es)****DOT, ADR, ADN, IMDG, IATA****Class** Not applicable**Packing group****DOT, ADR, IMDG, IATA** Not applicable**Environmental hazards:****Marine pollutant:** No**Special precautions for user**

Not applicable.

**Transport in bulk according to Annex II of****MARPOL 73/78 and the IBC Code** Not applicable.**UN "Model Regulation":**

Not applicable

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture****Sara****Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**Section 313 (Specific toxic chemical listings):**

7773-01-5 Manganese (II) Chloride

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# Safety Data Sheet

## acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 08/08/2023

Trade name: 2.5 M MnCl<sub>2</sub>

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**TSCA (Toxic Substances Control Act) Inventory:**

All components have the value ACTIVE.

**Hazardous Air Pollutants**

7773-01-5 Manganese (II) Chloride

**Proposition 65****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**New Jersey Right-to-Know List:**

None of the ingredients are listed.

**Pennsylvania Right-to-Know List:**

None of the ingredients are listed.

**Carcinogenicity categories****EPA (Environmental Protection Agency)**

7773-01-5 Manganese (II) Chloride

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**TLV (Threshold Limit Value)**

None of the ingredients are listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).  
**Signal word** Danger

**Hazard-determining components of labeling:**

Manganese (II) Chloride

**Hazard statements**

Harmful if swallowed.

Causes serious eye damage.

May cause damage to the brain through prolonged or repeated exposure.

**Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear eye protection / face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a poison center/doctor.

Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Chemical safety assessment****Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/11/2024

Reviewed on 08/08/2023

Trade name: 2.5 M MnCl<sub>2</sub>

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Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

\*

## 16 Other information

*\*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

### Department issuing SDS:

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### Contact:

Date of preparation / last revision 01/11/2024

### Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Acute Toxicity - Oral 4: Acute toxicity – Category 4  
Eye Damage 1: Serious eye damage/eye irritation – Category 1  
Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

US