

SAFETY DATA SHEET

MCW-XL7



1. Identification

Material Name: MCW-XL7
Synonyms:
Product Use: Crosslinker
Supplier: Mercurial Chemical Works
5900 Idyllic Drive
Oil Patch, LA 70805
Emergency: Emergency Telephone call CHEMTREC at 800-123-4567.

2. Hazard Identification

Warning!

Causes skin irritation
May cause an allergic skin reaction
Causes damage to respiratory organs through prolonged or repeated exposure.
Harmful to aquatic life.

HMIS: Health: 1 Flammability: 1 Physical Hazard: 0

NFPA:



GHS Classification:

Health	Environmental	Physical
Skin Sensitizer – Category 1 Target Organ Toxicity (Repeated -respiratory organs) - Category 1 Irritant (Skin & Eye) – Category 2 Target Organ Toxicity (acute-respiratory organs, liver, heart, kidney, adrenal, nervous system) – Category 2 Acute Toxicity (inhalation) - Category 4	Acute – Category 3	Not Classified

GHS Label:

Symbols:	
<i>Hazard Statements</i> Warning! Causes skin irritation May cause an allergic skin reaction Causes damage to respiratory organs through prolonged or repeated exposure. Harmful to aquatic life.	<i>Precautionary Statements</i> Avoid breathing mist and spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves, clothing and eye/face protection.

3. Composition / Information on Ingredients

Substance	CAS #	Wt.%
Sodium tetraborate	1303-96-4	10-30
Glyoxal	107-22-2	5-10

See Section 8 for exposure limits

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4. First Aid Measures

Inhalation: IF INHALED: Remove a person to fresh air and ensure comfortable breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and shoes and wash before reuse.

Eye Contact: 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 attention.

Ingestion: If swallowed and conscious, drink water or milk. IF exposed or concerned: Get medical advice/attention.

Note to physician: Treat for oxalic acid and borax exposure, potential sensitization and hyperemia.

5. Fire Fighting Measures

Suitable Extinguishing media: Water/foam, carbon dioxide, ABC fire extinguisher powder; water fog should be used to cool fire-exposed containers, structures and to protect personnel. Use water to dilute spills and to flush them away from sources of ignition.

Unsuitable Extinguishing media: High pressure water jet.

Special exposure hazards: None identified.

Combustion products: May produce toxic fumes of carbon monoxide and incomplete combustion products if burning.

Protection of firefighters: Fire fighters should wear full protective clothing including self-contained breathing apparatus. Keep personnel removed and upwind of fire. Keep containers cool with water spray. Do not inhale combustion gases.

NFPA Hazard Classification: Health: 1 Flammability: 1 Instability: 0 Special: --

6. Accidental Release Measures

Personal precautions: Use suitable protective equipment (see section 8) to prevent contamination of skin, eyes and personal clothing. Remove ignition sources and provide sufficient ventilation.

Methods for cleanup: Prevent spills from entering storm sewers or drains and contact with soil. Absorb on fire retardant, liquid-absorbing material (treated sawdust, diatomaceous earth, sand) and dispose of at an appropriate waste disposal facility in accordance with applicable regulations and product characteristics at time of disposal (see also Section 13).

7. Handling and Storage

Handling: When using do not eat, drink or smoke. Avoid repeated or prolonged contact with skin and breathing mists/vapors. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

Storage: NFPA Class IIIB Storage, Flash point > 200F. Store only in the original container.

8. Exposure Controls / Personal Protection

Exposure Limits: Sodium tetraborate: ACGIH: 2 mg/m³ (inhalable).

Glyoxal: ACGIH: 0.1 mg/m³ (inhalable & vapor), sensitizer, A4: Not classifiable as a human carcinogen.

Engineering controls: Local exhaust ventilation is recommended.

Personal protection: Follow precautions listed and recommendations for personal protective equipment. Emergency conditions may require additional precautions.

Eye: Wear chemical safety goggles and face shield. Have eye-wash stations available where eye contact can occur.

Skin: Avoid skin contact. Wear gloves impervious to conditions of use. Additional protection may be necessary to prevent skin contact including use of apron, face shield, boots or full body protection. A safety shower should be located in the work area.

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Respiratory: NIOSH approved respiratory protection should be worn if exposure limits are exceeded. A NIOSH approved respirator is generally acceptable for concentrations up to 10 times the PEL. Use a NIOSH approved air-supplied respirator for higher concentrations, unknown concentrations and for oxygen deficient atmospheres. Engineering controls are the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

Thermal: Not normally required.

9. Physical and Chemical Properties

Appearance:	Yellow liquid
Odor:	Moderate
Odor threshold:	Not available
pH:	7.9 at 75 °F (5% solution)
Melting/ Freezing point/ range:	Not available
Initial Boiling point/ range:	100°C
Flash Point:	> 200°F
Evaporation rate:	Not available
Flammability (solid, gas):	Not available
Upper/ lower flammability or explosive limits:	Not available
Vapor pressure:	0.461 psi (Reid)
Vapor density:	>1
Relative density:	0.98
Solubility in water:	miscible
Solubility in fats/ oils:	miscible
Partition Coefficient (n-octanol-water):	Glyoxal : -0.85
Autoignition temperature:	285°C
Decomposition temperature:	Not available
Viscosity:	Not available

10. Stability and Reactivity

Reactivity:	Product is stable at ambient temperature and pressure.
Chemical Stability:	Product is stable at ambient temperature and pressure.
Hazardous Reactions:	None identified.
Conditions to Avoid:	Contact with oxidizers
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Product is stable at ambient temperature and pressure.

11. Toxicological Information

Acute toxicity:	Acute Toxicity Estimate: Rat oral LD50 = 3986 mg/kg
Skin corrosion / irritation:	Glyoxal is an irritant.
Serious eye damage/ irritation	Glyoxal is an irritant.
Respiratory or skin sensitization:	Contains glyoxal. May produce an allergic reaction.
Germ cell mutagenicity:	Glyoxal has caused mutagenic effects in mammalian and human cells in - vitro and in bacteria.
Carcinogenicity:	Not available
Reproductive toxicity:	High-dose animal feeding studies in various species indicate that borates cause reproductive and developmental effects. A human study of occupational exposure to borate dust showed no adverse effect on reproduction.

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STOT–single exposure: Glyoxal has caused mutagenic effects in mammalian and human cells in - vitro and in bacteria.
STOT-repeated exposure: Glyoxal has caused sensitization, pancreas and kidney degeneration in animal studies.
Aspiration hazard: Not available
Other Information: Most likely exposure routes are inhalation, skin and eye contact.

12. Ecological Information

Toxicity: Glyoxal: *P. promelas* (Fathead minnow) LC50 = 215 mg/L (96h)
Sodium tetraborate: *O. mykiss* (Trout) LC50 = 27 ppm (96h)
Persistence and degradability: Glyoxal is readily biodegraded.
Bioaccumulative potential: Glyoxal – low, Sodium tetraborate accumulates in plants.
Mobility in soil: Glyoxal – very high.
Other adverse effects: Not available

13. Disposal Considerations

Disposal methods: Incinerate or dispose of contents and container as indicated by local, state and federal regulations.

14. Transport Information

UN2810, Toxic liquids, organic, n.o.s., (Glyoxal) 6.1, PGIII
Environmental Hazards: Not a marine pollutant.
ERG # 153

15. Regulatory Information

No components are subject to Montreal Protocol, Stockholm Convention, or Rotterdam Convention.
Region specific regulations
SARA Title III:
Section 302/304. Extremely Hazardous Substances - None.
Section 311/312. (40CFR370) Hazardous Categories: Acute, Chronic
Section 313: contains the following SARA 313 Toxic Release Chemicals: none.
TSCA (Toxic Substance Control Act): Listed
CA65: No components are known to the State of California to cause cancer or reproductive toxicity.

16. Other Information

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication and is based on data provided by our supplier. The information is given only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision History:
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