

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

1 Identification

- **Product identifier**
- **Trade name:** Color Reagent
For EZ1025 Series-Manganese
- **Article number:** SPX748
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 1B H350 May cause cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

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

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Hydroxylamine Hydrochloride

Formaldehyde

- **Hazard statements**

May cause an allergic skin reaction.

May cause cancer.

May cause damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

Obtain special instructions before use.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 1)

Do not handle until all safety precautions have been read and understood.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin: Wash with plenty of water.
 IF exposed or concerned: Get medical advice/attention.
 Specific treatment (see on this label).
 Get medical advice/attention if you feel unwell.
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 5470-11-1	Hydroxylamine Hydrochloride	4.0007%
CAS: 50-00-0	Formaldehyde	0.5995%

· **Table of Nonhazardous Ingredients**

CAS: 67-56-1	Methanol (Methyl Alcohol)	0.324%
CAS: 7732-18-5	Water	95.076%

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.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 2)

- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** 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:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.
- **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).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

CAS: 5470-11-1	Hydroxylamine Hydrochloride	0.42 mg/m ³
CAS: 50-00-0	Formaldehyde	0.90 ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	530 ppm

· **PAC-2:**

CAS: 5470-11-1	Hydroxylamine Hydrochloride	4.7 mg/m ³
CAS: 50-00-0	Formaldehyde	14 ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	2,100 ppm

· **PAC-3:**

CAS: 5470-11-1	Hydroxylamine Hydrochloride	28 mg/m ³
CAS: 50-00-0	Formaldehyde	56 ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	7200* ppm

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 3)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
 Ensure good ventilation/exhaustion at the workplace.
 Open and handle receptacle with care.
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **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

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
 The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
 At this time, the remaining constituent has no known exposure limits.

CAS: 50-00-0 Formaldehyde

PEL	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c)
REL	Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A
TLV	Short-term value: 0.37 mg/m ³ , 0.3 ppm Long-term value: 0.12 mg/m ³ , 0.1 ppm DSEN; RSEN

- **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.
- **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:**



Protective gloves

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 4)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Formaldehyde
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

· **Density at 20 °C (68 °F):** 1.00219 g/cm³ (8.36328 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

(Contd. on page 6)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 5)

- | | |
|---|--|
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 0.9 % |
| Water: | 95.1 % |
| VOC content: | 0.92 % |
| | 9.3 g/l / 0.08 lb/gal |
| · Solids content: | 4.0 % |
| · Other information | No further relevant information available. |

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:**

ATE (Acute Toxicity Estimate)

Oral	LD50	>7,647-7,740 mg/kg
Dermal	LD50	17,745 mg/kg
Inhalative	LC50/4h	494 mg/l

CAS: 5470-11-1 Hydroxylamine Hydrochloride

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	1,100 mg/kg (ATE)

CAS: 50-00-0 Formaldehyde

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4h	3 mg/l (ATE)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 6)

· **Additional toxicological information:**

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

· **Carcinogenic categories**

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

CAS: 50-00-0	Formaldehyde	I
--------------	--------------	---

· **NTP (National Toxicology Program)**

CAS: 50-00-0	Formaldehyde	K
--------------	--------------	---

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

CAS: 50-00-0	Formaldehyde	
--------------	--------------	--

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

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

· **Additional ecological information:**

· **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

· **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:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **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**

· **DOT, ADN, IMDG, IATA** Not regulated

· **UN proper shipping name**

· **DOT, ADN, IMDG, IATA** Not regulated

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 7)

- | | |
|--|-----------------|
| · Transport hazard class(es) | |
| · DOT, ADN, IMDG, IATA | |
| · Class | Not regulated |
| · Packing group | |
| · DOT, IMDG, IATA | Not regulated |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Not regulated |

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

CAS: 50-00-0	Formaldehyde
--------------	--------------

· Section 313 (Specific toxic chemical listings):

CAS: 50-00-0	Formaldehyde
--------------	--------------

CAS: 67-56-1	Methanol (Methyl Alcohol)
--------------	---------------------------

· TSCA (Toxic Substances Control Act):

Hydroxylamine Hydrochloride	ACTIVE
-----------------------------	--------

Formaldehyde	ACTIVE
--------------	--------

Methanol (Methyl Alcohol)	ACTIVE
---------------------------	--------

Water	ACTIVE
-------	--------

· Hazardous Air Pollutants

CAS: 50-00-0	Formaldehyde
--------------	--------------

CAS: 67-56-1	Methanol (Methyl Alcohol)
--------------	---------------------------

· Proposition 65

· Chemicals known to cause cancer:

CAS: 50-00-0	Formaldehyde
--------------	--------------

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

CAS: 67-56-1	Methanol (Methyl Alcohol)
--------------	---------------------------

· Carcinogenic categories

· EPA (Environmental Protection Agency)

CAS: 50-00-0	Formaldehyde	BI
--------------	--------------	----

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 8)

· **TLV (Threshold Limit Value established by ACGIH)**

CAS: 50-00-0 Formaldehyde

A2

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

CAS: 50-00-0 Formaldehyde

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

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*Hydroxylamine Hydrochloride**Formaldehyde*

· **Hazard statements**

*May cause an allergic skin reaction.**May cause cancer.**May cause damage to organs through prolonged or repeated exposure.*

· **Precautionary statements**

*Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Do not breathe dust/fume/gas/mist/vapors/spray.**Contaminated work clothing must not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**If on skin: Wash with plenty of water.**IF exposed or concerned: Get medical advice/attention.**Specific treatment (see on this label).**Get medical advice/attention if you feel unwell.**If skin irritation or rash occurs: Get medical advice/attention.**Wash contaminated clothing before reuse.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **National regulations:**

· **Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.**Exceptions can be made by the authorities in certain cases.*

· **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:** Environment protection department.

· **Contact:**

· **Date of preparation / last revision**

Revision 0.0, 03-26-2019: Creation date for SDS. STN

03/26/2019 / -

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/26/2019

Reviewed on 03/26/2019

Trade name: Color Reagent
For EZ1025 Series-Manganese

(Contd. of page 9)

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
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
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 1B: Carcinogenicity – Category 1B
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

US