

# SAFETY DATA SHEET

40.10208-

## Section 1. Identification

**Product name** : H&C® INFUSION™ Reactive Concrete Stain  
Sienna Red

**Product code** : 40.10208-

**Other means of identification** : Not available.

**Product type** : Liquid.

**Relevant identified uses of the substance or mixture and uses advised against**

Paint or paint related material.

**Manufacturer** : H&C Products Group  
101 W. Prospect Avenue  
Cleveland, OH 44115

**National contact** : H&C Products Groups  
180 Brunel Road  
Mississauga, Ontario L4Z 1T5 Canada

**Emergency telephone number of the company** : US/Canada: (800) 424-9300  
Mexico: CHEMTREC Mexico 800-681-9531. Available 24 hours and 365 days per year

**Product Information Telephone Number** : US/Canada: (800) 867-8246  
Mexico: 800-717-3123 / 55-5333-1501

**Transportation Emergency Telephone Number** : US/Canada: (800) 424-9300  
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

## Section 2. Hazards identification

**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 4  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION/IRRITATION - Category 1  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 5.9% (oral), 91.6% (dermal), 85.7% (inhalation)

### GHS label elements

#### Hazard pictograms



#### Signal word

: Danger

#### Hazard statements

: Harmful if swallowed or if inhaled.  
Causes severe skin burns and eye damage.

### Precautionary statements

#### General

: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

#### Prevention

: Wear protective gloves, protective clothing and eye or face protection. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

**Date of issue/Date of revision** : 5/21/2024 **Date of previous issue** : 9/19/2023

40.10208- H&C® INFUSION™ Reactive Concrete Stain  
Sienna Red

**Version** : 11 1/14

**SHW-85-NA-GHS-CA**

## Section 2. Hazards identification

**Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. 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 or doctor.

**Storage** : Store locked up.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** None known.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : Not available.

### CAS number/other identifiers

Ingredient name	% by weight	CAS number
Ferrous Chloride	67.9	7758-94-3
Ferric Chloride	9.9	7705-08-0
Chromium Trichloride	7.9	10060-12-5
Hydrochloric acid	5.9	7647-01-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

**Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

**Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Section 4. First aid measures

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes severe burns.
- Ingestion** : Harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
halogenated compounds  
metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Ferrous Chloride	7758-94-3	<b>ACGIH TLV (United States, 7/2023). [Iron salts, soluble]</b> TWA: 1 mg/m <sup>3</sup> , (as Fe) 8 hours. <b>NIOSH REL (United States, 10/2020). [iron salts]</b> TWA: 1 mg/m <sup>3</sup> , (as Fe) 10 hours.
Ferric Chloride	7705-08-0	<b>ACGIH TLV (United States, 7/2023). [Iron salts, soluble]</b> TWA: 1 mg/m <sup>3</sup> , (as Fe) 8 hours. <b>NIOSH REL (United States, 10/2020). [iron salts]</b> TWA: 1 mg/m <sup>3</sup> , (as Fe) 10 hours.
Chromium Trichloride	10060-12-5	<b>NIOSH REL (United States, 10/2020). [chromium (III) compounds]</b> TWA: 0.5 mg/m <sup>3</sup> , (as Cr) 8 hours. <b>ACGIH TLV (United States, 7/2023). [inorganic chromium III compounds]</b> TWA: 0.003 mg/m <sup>3</sup> , (measured as Cr) 8 hours. Form: Inhalable fraction <b>OSHA PEL (United States, 5/2018). [Chromium (III) compounds]</b> TWA: 0.5 mg/m <sup>3</sup> , (as Cr) 8 hours.
Hydrochloric acid	7647-01-0	<b>ACGIH TLV (United States, 7/2023).</b> C: 2 ppm <b>NIOSH REL (United States, 10/2020).</b> CEIL: 5 ppm CEIL: 7 mg/m <sup>3</sup> <b>OSHA PEL (United States, 5/2018).</b> CEIL: 5 ppm

## Section 8. Exposure controls/personal protection

CEIL: 7 mg/m<sup>3</sup>

### Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Ferrous chloride	7758-94-3	<p><b>CA Alberta Provincial (Canada, 3/2023).</b> [Iron salts, soluble]                      OEL: 1 mg/m<sup>3</sup>, (as Fe) 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b> [Iron salts - soluble]                      TWA: 1 mg/m<sup>3</sup>, (as Fe) 8 hours.                      STEL: 2 mg/m<sup>3</sup>, (as Fe) 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b> [Iron salts, soluble]                      TWAEV: 1 mg/m<sup>3</sup>, (as Fe) 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b> [Iron salts, soluble]                      TWA: 1 mg/m<sup>3</sup>, (as Fe) 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> [Iron salts, soluble]                      STEL: 3 mg/m<sup>3</sup>, (measured as Fe) 15 minutes.                      TWA: 1 mg/m<sup>3</sup>, (measured as Fe) 8 hours.</p>
Ferric chloride	7705-08-0	<p><b>CA Alberta Provincial (Canada, 3/2023).</b> [Iron salts, soluble]                      OEL: 1 mg/m<sup>3</sup>, (as Fe) 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b> [Iron salts - soluble]                      TWA: 1 mg/m<sup>3</sup>, (as Fe) 8 hours.                      STEL: 2 mg/m<sup>3</sup>, (as Fe) 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b> [Iron salts, soluble]                      TWAEV: 1 mg/m<sup>3</sup>, (as Fe) 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b> [Iron salts, soluble]                      TWA: 1 mg/m<sup>3</sup>, (as Fe) 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> [Iron salts, soluble]                      STEL: 3 mg/m<sup>3</sup>, (measured as Fe) 15 minutes.                      TWA: 1 mg/m<sup>3</sup>, (measured as Fe) 8 hours.</p>
Chromium Trichloride	10060-12-5	<p><b>CA British Columbia Provincial (Canada, 8/2023).</b> [hexavalent chromium compounds] Absorbed through skin. Skin sensitizer. Inhalation sensitizer. Notes: No British Columbia exposure limit at this time; The hazards “absorbed through skin” is for water-soluble only.</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b> [trivalent chromium compounds] Skin sensitizer. Inhalation sensitizer. Notes: The hazard “sensitizing inhalation” is for water-soluble only.; No British Columbia exposure limit at this time for inhalable form                      TWA: 0.5 mg/m<sup>3</sup>, (as Cr(III)) 8 hours. Form:</p>

## Section 8. Exposure controls/personal protection

Hydrochloric acid 10,2 N	7647-01-0	<p>Total</p> <p><b>CA Alberta Provincial (Canada, 3/2023).</b>  <b>[Chromium Metal and Cr III compounds]</b>          OEL: 0.5 mg/m<sup>3</sup>, (as Cr) 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b>  <b>[Chromium (III) compounds]</b>          TWAEV: 0.5 mg/m<sup>3</sup>, (as Cr) 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b>  <b>[Chromium and inorganic compounds, Metal and Cr III compounds]</b>          TWA: 0.5 mg/m<sup>3</sup>, (as Cr) 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b> <b>[Chromium (III) metal and inorganic compounds]</b>          STEL: 1.5 mg/m<sup>3</sup>, (measured as Cr) 15 minutes.          TWA: 0.5 mg/m<sup>3</sup>, (measured as Cr) 8 hours.</p> <p><b>CA Alberta Provincial (Canada, 3/2023).</b>          C: 3 mg/m<sup>3</sup>          C: 2 ppm</p> <p><b>CA British Columbia Provincial (Canada, 8/2023).</b>          C: 2 ppm</p> <p><b>CA Ontario Provincial (Canada, 6/2019).</b>          Ceiling Limit: 2 ppm</p> <p><b>CA Quebec Provincial (Canada, 7/2023).</b>          STEV: 2 ppm 15 minutes.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>          CEIL: 2 ppm</p>
--------------------------	-----------	---

**Occupational exposure limits (Mexico)**

<b>Ingredient name</b>	<b>CAS #</b>	<b>Exposure limits</b>
Ferrous Chloride	7758-94-3	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> <b>[Hierro, sales solubles]</b> TWA: 1 mg/m <sup>3</sup> , (as Fe) 8 hours.
Ferric Chloride	7705-08-0	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> <b>[Hierro, sales solubles]</b> TWA: 1 mg/m <sup>3</sup> , (as Fe) 8 hours.
Chromium Trichloride	10060-12-5	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> <b>[Cromo, Metal y compuestos inorgánicos de cromo metal y Cr III]</b> TWA: 0.5 mg/m <sup>3</sup> 8 hours.
Hydrochloric acid	7647-01-0	<b>NOM-010-STPS-2014 (Mexico, 4/2016).</b> CEIL: 2 ppm

**Biological exposure indices (United States)**

No exposure indices known.

**Biological exposure indices (Canada)**

No exposure indices known.

**Biological exposure indices (Mexico)**

No exposure indices known.

## Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Color** : Various
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 1.9
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : 93°C (199.4°F)
- Flash point** : Closed cup: Not applicable.
- Evaporation rate** : 0.09 (butyl acetate = 1)
- Flammability** : Not available.



## Section 9. Physical and chemical properties

**Lower and upper explosion limit/flammability limit** : Not available.

**Vapor pressure** : 55.1 kPa (413.6 mm Hg)

**Relative vapor density** : 1 [Air = 1]

**Relative density** : 1.32

**Solubility(ies)** :

Media	Result
cold water	Not soluble

**Partition coefficient: n-octanol/water** : Not applicable.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Viscosity** : Kinematic (40°C (104°F)): >20.5 mm<sup>2</sup>/s (>20.5 cSt)

**Molecular weight** : Not applicable.

**Heat of combustion** : 0 kJ/g

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : No specific data.

**Incompatible materials** : Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.  
Reactive or incompatible with the following materials:  
alkalis

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ferrous Chloride	LD50 Oral	Rat	450 mg/kg	-
Ferric Chloride	LD50 Oral	Rat	316 mg/kg	-
Chromium Trichloride	LD50 Oral	Rat	1790 mg/kg	-
Hydrochloric acid	LC50 Inhalation Gas.	Rat	3124 ppm	1 hours

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hydrochloric acid	Eyes - Mild irritant	Rabbit	-	0.5 minutes 5 mg	-
	Skin - Mild irritant	Human	-	24 hours 4 %	-

# Section 11. Toxicological information

## Sensitization

Not available.

## Mutagenicity

Not available.

## Carcinogenicity

Not available.

## Classification

Product/ingredient name	OSHA	IARC	NTP
Chromium Trichloride	-	3	-
Hydrochloric acid	-	3	-

## Reproductive toxicity

Not available.

## Teratogenicity

Not available.

## Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Hydrochloric acid	Category 3	-	Respiratory tract irritation

## Specific target organ toxicity (repeated exposure)

Not available.

## Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

## Potential acute health effects

**Eye contact** : Causes serious eye damage.

**Inhalation** : Harmful if inhaled.

**Skin contact** : Causes severe burns.

**Ingestion** : Harmful if swallowed.

## Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur

**Ingestion** : Adverse symptoms may include the following:  
stomach pains

# Section 11. Toxicological information

## Delayed and immediate effects and also chronic effects from short and long term exposure

### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

## Numerical measures of toxicity

### Acute toxicity estimates

Route	ATE value
Oral	535.82 mg/kg
Inhalation (gases)	3785.86 ppm

# Section 12. Ecological information

## Toxicity

Product/ingredient name	Result	Species	Exposure
Ferrous Chloride	Acute EC50 17 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
Ferric Chloride	Acute LC50 4000 µg/l Fresh water	Fish - <i>Morone saxatilis</i> - Larvae	96 hours
	Acute LC50 644.39 µg/l Fresh water	Crustaceans - <i>Stenocypris major</i> - Adult	48 hours
Hydrochloric acid	Acute LC50 9600 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 20.26 mg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	96 hours
	Chronic NOEC 0.7 mg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	21 days
	Acute LC50 240000 µg/l Marine water	Crustaceans - <i>Carcinus maenas</i> - Adult	48 hours
	Acute LC50 282 ppm Fresh water	Fish - <i>Gambusia affinis</i> - Adult	96 hours

## Persistence and degradability

Not available.

## Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Ferrous Chloride	-	20	Low
Ferric Chloride	-	20	Low

**Mobility in soil**






**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>DOT Classification</b>	<b>TDG Classification</b>	<b>Mexico Classification</b>	<b>IATA</b>	<b>IMDG</b>
<b>UN number</b>	UN3066	UN3066	UN3066	UN3066	UN3066
<b>UN proper shipping name</b>	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
<b>Transport hazard class(es)</b>	8 	8 	8 	8 	8 
<b>Packing group</b>	II	II	II	II	II
<b>Environmental hazards</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	-  <b>ERG No.</b> 153	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).  <b>ERG No.</b> 153	-  <b>ERG No.</b> 153	-	<b>Emergency schedules</b> F-A, S-B

## Section 14. Transport information

--	--	--	--	--	--

**Special precautions for user** : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

**Transport in bulk according to IMO instruments** : Not available.

**Proper shipping name** : Not available.

## Section 15. Regulatory information

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists

- Australia inventory (AIIIC)**: Not determined.
- China inventory (IECSC)**: Not determined.
- Japan inventory (CSCL)**: Not determined.
- Japan inventory (ISHL)**: Not determined.
- Korea inventory (KECI)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
- Philippines inventory (PICCS)**: Not determined.
- Taiwan Chemical Substances Inventory (TCSI)**: Not determined.
- Thailand inventory**: Not determined.
- Turkey inventory**: Not determined.
- Vietnam inventory**: Not determined.

## Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	/	3
Flammability		0
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

# Section 16. Other information

Classification	Justification
ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method Calculation method On basis of test data On basis of test data

**History**

- Date of printing** : 5/21/2024
- Date of issue/Date of revision** : 5/21/2024
- Date of previous issue** : 9/19/2023
- Version** : 11
- Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
N/A = Not available  
SGG = Segregation Group  
UN = United Nations

📌 Indicates information that has changed from previously issued version.

**Notice to reader**

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.