

Material Safety Data Sheet

EHC® ISCR Amendment

MSDS #: EHC-C

Revision Date: 2013-04-16

Version 1.03



ENVIRONMENTAL SOLUTIONS

This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	EHC® ISCR Amendment
Recommended use Uses advised against	Bioremediation product for the remediation of contaminated soil and groundwater Not for use in potable drinking water.
Manufacturer	Emergency telephone number
FMC CORPORATION Environmental Solutions 1735 Market Street Philadelphia, PA 19103 Phone: +1 215/ 299-6000 (General Information) E-Mail: msdsinfo@fmc.com	For leak, fire, spill or accident emergencies, call: +1 703-527-3887 (CHEMTREC) 1 303 / 595 9048 (Medical - U.S. - Call Collect)

2. Hazards identification

Emergency Overview

CONTAINMENT HAZARD:

Any vessel that contains wet wet EHC must be vented due to potential pressure build up from fermentation gases

Potential health effects

Acute Toxicity

Eyes

No significant health effects anticipated

Skin

Product dust may cause mechanical eye irritation.

Inhalation

None known .

Ingestion

Inhalation of dust in high concentration may cause irritation of respiratory system.

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Toxicity

No known chronic effects of components present at greater than 1%.

3. Composition/information on ingredients

Ingredients

Chemical Name	CAS-No	Weight %
Organic amendment	Proprietary	52-82
Iron	7439-89-6	18-48

4. First aid measures

Eye contact	In case of contact, immediately flush skin with plenty of water. Get medical attention if irritation develops and persists.
Skin contact	Wash off with soap and water.
Inhalation	Remove person to fresh air. If signs/symptoms continue, get medical attention.
Ingestion	Rinse mouth with water and afterwards drink plenty of water or milk. Call a poison control center or doctor immediately for treatment advice.

5. Fire-fighting measures

Flammable properties	Combustible material.
Suitable extinguishing media	Dry chemical, CO ₂ , sand, earth, water spray or regular foam.
<u>Explosion Data</u>	
Sensitivity to Mechanical Impact	not applicable
Sensitivity to Static Discharge	not applicable
Specific hazards arising from the chemical	Dry or powdered ingredients are combustible. Dispersal of finely divided dust from products into air may form mixtures that are ignitable and explosive. Minimize airborne dust generation and eliminate sources of ignition.

NFPA	Health Hazard 1	Flammability 1	Stability 0	Special Hazards -
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6. Accidental release measures

Personal precautions	Avoid dust formation. For personal protection see section 8.
Methods for containment	Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.
Methods for cleaning up	Sweep or vacuum up spillage and return to container. The waste may be recovered and recycled.

7. Handling and storage

Handling	Minimize dust generation and accumulation. Keep away from open flames, hot surfaces and sources of ignition. Refer to Section 8.
Storage	Keep tightly closed in a dry and cool place. Keep away from open flames, hot surfaces and sources of ignition. Any vessel that contains wet EHC must be vented due to potential pressure build up from fermentation gases.

8. Exposure controls/personal protection**Exposure guidelines**

Local nuisance dust standards apply.

Occupational exposure controls**Engineering measures**

None under normal use conditions. Provide appropriate exhaust ventilation at places where dust is formed.

General Information

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Respiratory protection

Whenever dust in the worker's breathing zone cannot be controlled with ventilation or other engineering means, workers should wear respirators or dust masks approved by NIOSH/MSHA, EU CEN or comparable organization to protect against airborne dust.

Eye/face protection

Safety glasses with side-shields

Skin and body protection

No special precautions required.

Hand protection

Use gloves if extended exposure is anticipated.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	Tan brown flakes,
Physical state	solid
Odor	odorless
Odor Threshold	not applicable
pH	5.6 (as aqueous solution)
Melting Point/Range	No information available.
Freezing point	No information available.
Boiling Point/Range	not applicable
Flash Point	not applicable
Evaporation rate	not applicable
Flammable properties	Combustible material
Vapor pressure	No information available.
Vapor density	No information available.
Density	0.80 g/mL
Bulk density	No data available
Water solubility	practically insoluble
Percent volatile	No information available.
Partition coefficient:	not applicable
Viscosity	No information available.

9.2 Other information**Autoignition Temperature**

No information available.

10. Stability and reactivity

Stability	Stable.
Conditions to avoid	Heat, flames and sparks
Materials to avoid	Oxidizing agents Strong acids
Hazardous decomposition products	Burning produces obnoxious and toxic fumes.
Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous reactions	May react with water to release flammable hydrogen gas.

11. Toxicological informationAcute effects

Remarks	The product has not been tested. Data is based on component.
Eye irritation	No data available for the formulation. Non-irritating (rabbit) (based on components)
Skin irritation	No data available for the formulation. Non-irritating (rabbit) (based on components)
LD50 Oral	Iron: 98.6 g/kg (rat)
LD50 Dermal	No information available.
LC50 Inhalation:	Iron: > 100 mg/m ³ 6 hr (rat)

Chronic Toxicity

Chronic Toxicity	No known chronic effects of components present at greater than 1%.
Carcinogenicity	Contains no ingredient listed as a carcinogen

12. Ecological informationEcotoxicity

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

Persistence and degradability	Biodegradability does not pertain to inorganic substances.
Bioaccumulation	Does not bioaccumulate.
Mobility	Is not likely mobile in the environment due its low water solubility.
Other adverse effects	None known

13. Disposal considerations

Waste disposal methods	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.
Contaminated packaging	Dispose of in accordance with local regulations.

14. Transport information

<u>DOT</u>	not regulated
<u>TDG</u>	not regulated
<u>ICAO/IATA</u>	not regulated
<u>IMDG/IMO</u>	not regulated

15. Regulatory information

International Inventories

TSCA Inventory (United States of America)	Complies
DSL (Canada)	Complies
NDSL (Canada)	Complies
EINECS/ELINCS (Europe)	Complies
ENCS (Japan)	-
IECSC (China)	Complies
KECL (Korea)	Complies
PICCS (Philippines)	Complies
AICS (Australia)	Complies
NZIoC (New Zealand)	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	no
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

International Regulations**Mexico - Grade**

No information available.

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

not determined

16. Other information

HMIS	Health Hazard 1	Flammability 1	Stability 0	Special precautions -
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NFPA/HMIS Ratings Legend

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Revision Date:

2013-04-16

Reason for revision:

No information available.

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End of Material Safety Data Sheet