1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

<table>
<thead>
<tr>
<th>Product Name</th>
<th>EHC® Plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate Commercial Name</td>
<td>EHC® +</td>
</tr>
</tbody>
</table>

1.2. Relevant identified uses of the substance or mixture and uses advised against

<table>
<thead>
<tr>
<th>Recommended Use</th>
<th>Remediation of contaminated soil and groundwater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restrictions on Use</td>
<td>Not for use in potable drinking water.</td>
</tr>
</tbody>
</table>

1.3. Details of the supplier of the safety data sheet

Supplier

PeroxyChem LLC
2005 Market Street
Suite 3200
Philadelphia, PA 19103
Phone: +1 267/ 422-2400 (General Information)
E-Mail: sdsinfo@peroxychem.com

1.4. Emergency telephone numbers

For leak, fire, spill or accident emergencies, call:
+1 703-527-3887 (CHEMTREC)
2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Not classified as a dangerous substances or preparation according to Regulation (EC) 1272/2008.

2.2. Label Elements

Not classified as a dangerous substances or preparation according to Regulation (EC) 1272/2008.

2.3. OTHER INFORMATION

General Hazards

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>EC-No</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>Present</td>
<td>7439-89-6</td>
<td>15 - 50</td>
<td>-</td>
<td>01-2119462838-24-XX XX</td>
</tr>
<tr>
<td>Organic amendment (35-70)</td>
<td>Listed</td>
<td>-</td>
<td>35-70</td>
<td>-</td>
<td>NA</td>
</tr>
<tr>
<td>Soybean oil</td>
<td>Present</td>
<td>8001-22-7</td>
<td>0 - 2</td>
<td>-</td>
<td>NA</td>
</tr>
<tr>
<td>Activated carbon (10-20)</td>
<td>Present</td>
<td>7440-44-0</td>
<td>10-20</td>
<td></td>
<td>01-2119969000-32-0000</td>
</tr>
<tr>
<td>Viscosity modifier (0-5)</td>
<td>Listed</td>
<td>-</td>
<td>0-5</td>
<td>-</td>
<td>NA</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1. Description of first-aid measures

Skin Contact    Wash off with soap and water. If skin irritation persists, call a physician.
Eye Contact     In case of contact, immediately flush skin with plenty of water. Get medical attention if irritation develops and persists.
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. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

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

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

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

Treat symptomatically.
5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Dry chemical, CO2, sand, earth, water spray or regular foam

5.2. Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases
Dusts or fumes may form explosive mixtures in air. May be ignited by heat, sparks or flames.

5.3. Advice for firefighters

Special protective equipment for fire-fighters
As in any fire, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid dispersal of dust in the air (i.e., cleaning dust surfaces with compressed air.). For personal protection see Section 8.

6.2. Environmental Precautions

Recover the product in solid form, if possible. Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Sweep or vacuum up spillage and return to container. The waste may be recovered and recycled. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Use only non-sparking tools.

6.4. Reference to other sections

For personal protection see Section 8. Dispose of waste as indicated in Section 13

7. HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Minimize dust generation and accumulation. Keep away from open flames, hot surfaces and sources of ignition. Refer to Section 8.

7.2. Conditions for safe storage, including any incompatibilities

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.

Materials to avoid
Strong acids.

7.3. Specific end uses

See subsection 1.2. Relevant identified uses of the substance or mixture and uses advised against

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
8.2. Exposure Controls

Engineering measures

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in the handling of this product contain explosion relief vents or an explosion suppression or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

Respiratory Protection
In case of insufficient ventilation wear suitable respiratory equipment.

Eye/Face Protection
Safety glasses with side-shields

Skin and Body Protection
Wear suitable protective clothing.

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.

Environmental exposure controls
Local authorities should be advised if significant spillages cannot be contained.

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)
Flash point: No information available
Melting Point/Range: No information available
Freezing Point: No information available
Boiling Point/Range: No information available
Autoignition temperature: No information available
Explosive properties: Low level dust explosion hazard
Vapor pressure: No information available
Vapor density: No information available
Density: 0.80 g/mL
Partition coefficient: No information available
Water solubility: Practically insoluble
Viscosity: No information available
Evaporation Rate: No information available

9.2. OTHER INFORMATION

Bulk Density: No information available

10. STABILITY AND REACTIVITY

10.1. Reactivity

None under normal use conditions

10.2. Chemical Stability

Stable under recommended storage conditions.

10.3. Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Strong acids.

10.6. Hazardous Decomposition Products

Burning produces obnoxious and toxic fumes.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity
This product is expected to have low oral, dermal and inhalation toxicity.

LD50 Dermal: No information available
LD50 Oral: Iron: 98.6 g/kg (rat)
LC50 Inhalation: Iron: > 100 mg/m³ 6 hr (rat)

Skin Contact: Expected to be non-irritating based on ingredients.
Eye Contact: Expected to be non-irritating based on ingredients.

Chronic toxicity
Sensitization: As a precaution the product should be treated as a sensitizer.
Carcinogenicity  
There are no known carcinogenic chemicals in this product.

Mutagenicity  
This product is not recognized as mutagenic by Research Agencies

Reproductive toxicity  
This product is not recognized as reprotox by Research Agencies

### 12. ECOLOGICAL INFORMATION

**12.1. Toxicity**

Ecotoxicity effects

Not expected to have significant environmental effects.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to Microorganisms</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td></td>
<td>96 h LC50: = 13.6 mg/L (Morone saxatilis) static</td>
<td></td>
<td>48 h Daphnia magna EC50 = 8934.78 mg/l</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

The organic components are biodegradable and can be expected to contribute to BOD.

**12.3. Bioaccumulative potential**

Does not bioaccumulate.

**12.4. Mobility in soil**

Is not likely mobile in the environment due its low water solubility.

**12.5. Results of PBT and vPvB assessment**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

**12.6. Other Adverse Effects**

None known.

### 13. DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

- Waste from residues / unused products  Dispose of in accordance with local regulations.
- Product / Packaging disposal  Dispose of in accordance with all applicable national environmental laws and regulations.
- Contaminated Packaging  Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. TRANSPORT INFORMATION

**ADR/RID**  NOT REGULATED

**IMDG/IMO**  NOT REGULATED

**ICAO/IATA**  NOT REGULATED
15. REGULATORY INFORMATION

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

International Inventories

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA (United States)</th>
<th>DSL (Canada)</th>
<th>EINECS/ELI NCS (Europe)</th>
<th>ENCS (Japan)</th>
<th>China (IECSC)</th>
<th>KECL (Korea)</th>
<th>PICCS (Philippines)</th>
<th>AICS (Australia)</th>
<th>NZIoC (New Zealand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron 7439-89-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Organic amendment</td>
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<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>Viscosity modifier</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Directive 2008/98/EC on waste
Does not apply

Major Accidents (Directive 2012/18/EU)
Not applicable

CWC (Chemical Weapons Convention) - Annex on Chemicals
Not applicable

EU Export and import of dangerous chemicals (Regulation (EC) No 304/2003)
Not Applicable

15.2. Chemical Safety Report

Not Applicable.

16. OTHER INFORMATION

Full text of H-phrases referred to in sections 2 and 3
None

Issuing Date: 2015-07-14
Restrictions on Use
This product's foreseen or recommended applications are: Remediation of contaminated soil and groundwater

Revision date: 2019-02-21
Revision note
Initial Release

List of Abbreviations and Acronyms
ATE Acute Toxicity Estimate
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
AND European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CE50 Concentración Efectiva Media CEN European Committee for Standardisation
C&L Classification and Labelling
CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CLV Ceiling Limit Value Par CAS# Chemical Abstracts Service number
CMR Carcinogen, Mutagen, or Reproductive Toxicant
CSA Chemical Safety Assessment
CSR Chemical Safety Report
DNEL Derived No Effect Level
DOT Department of Transportation
DPD Dangerous Preparations Directive 1999/45/EC
DSD Dangerous Substances Directive 67/548/EEC
EHC® Plus

vPvB Very Persistent and Very Bioaccumulative / mPmB Muy Persistente y Muy Bioacumulativo
WGK Wassergefährdungsklassen

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Prepared By:

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End of Safety Data Sheet