

Revision Date 27-Feb-2012

Revision Number 4

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

**Product Identifier**

**Product Description:** Ammonium ferrocyanide hydrate  
**Cat No.** 209730000; 209730100  
**Synonyms** Ammonium hexacyanoferrate

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

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

**Company**

Acros Organics BVBA  
 Janssen Pharmaceuticaaan 3a  
 2440 Geel, Belgium

**E-mail address** begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**

For information in the US, call: 001-800-ACROS-01  
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
 Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300  
 CHEMTREC Phone Number, Europe: 001-703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

Acute dermal toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16*

**Symbol(s)** Xn - Harmful

**R-phrases(s)**

**Risk Combination Phrases** R20/21 - Harmful by inhalation and in contact with skin

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**SECTION 2. HAZARDS IDENTIFICATION**

Label Elements



Signal Word

Warning

Hazard Statements

H312 - Harmful in contact with skin  
H332 - Harmful if inhaled

Precautionary Statements - EU (§28, 1272/2008)

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray  
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
P312 - Call a POISON CENTER or doctor/ physician if you feel unwell

Other Hazards

No information available.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Ferrate(4-), hexakis(cyano-C)-, tetraammonium, (OC-6-11)-14481-29-9	EEC No. 238-476-9	90-95	14481-29-9	Xn; R20/21	Acute Tox. 4 (H332) Acute Tox. 4 (H312)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

**SECTION 4. FIRST AID MEASURES**

Description of first aid measures

Eye Contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

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<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention. Take off contaminated clothing and shoes immediately.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. If possible drink milk afterwards.
<b>Inhalation</b>	Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.
<b>Notes to Physician</b>	Treat symptomatically

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing media

#### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Extinguishing media which must not be used for safety reasons**

No information available.

### Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

### Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

### Environmental precautions

Prevent further leakage or spillage if safe to do so

### Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid contact with clothing. Remove and wash contaminated clothing before re-use. Avoid breathing vapors or mists. Do not ingest. Wash thoroughly after handling.

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**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

**Specific End Uses**
**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Control parameters**
**Exposure limits**
**Component**

 Ferrate(4-),  
hexakis(cyano-C)-,  
tetraammonium, (OC-6-  
11)-

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 15 mg/m <sup>3</sup> 15 min TWA: 5 mg/m <sup>3</sup> 8 hr Skin	VME: 5 mg/m <sup>3</sup> 8 heures. CN Skin		VLA-ED: 1 mg/m <sup>3</sup> 8 horas

**Component**

 Ferrate(4-),  
hexakis(cyano-C)-,  
tetraammonium, (OC-6-  
11)-

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 2 mg/m <sup>3</sup> 8 Stunden. inhalable fraction Skin Peak: 2 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> 8 horas		

**Component**

 Ferrate(4-),  
hexakis(cyano-C)-,  
tetraammonium, (OC-6-  
11)-

Austria	Denmark	Switzerland	Poland	Norway
		MAK: 1 mg/m <sup>3</sup> 8 Stunden		TWA: 5 mg/m <sup>3</sup> 8 timer Skin

**Component**

 Ferrate(4-),  
hexakis(cyano-C)-,  
tetraammonium, (OC-6-  
11)-

Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
		Skin		

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)**

No information available.

**Predicted No Effect Concentration (PNEC)**

No information available.

**Exposure controls**
**Engineering Measures**

Ventilation systems

**Personal protective equipment**
**Eye Protection**

Goggles

**Hand Protection**

Protective gloves

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

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**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls**

No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****Physical State**

Powder, Solid

**Appearance**

Green

**odor**

odorless

**pH**

No information available.

**Boiling Point/Range**

No information available.

**Melting Point/Range**

No information available.

**Flash Point**

No information available.

**Autoignition Temperature**

No information available.

**Molecular Formula**

C<sub>6</sub> H<sub>16</sub> Fe N<sub>10</sub> . x H<sub>2</sub> O

**Molecular Weight**

284.1

**SECTION 10. STABILITY AND REACTIVITY****Reactivity****Chemical Stability**

Stable under normal conditions. Light sensitive. Moisture sensitive.

**Possibility of Hazardous Reactions****Hazardous Polymerization**

No information available

**Hazardous Reactions .**

No information available.

**Conditions to Avoid**

Heat, flames and sparks

**Incompatible Materials**

Oxidizing agents.

**Hazardous Decomposition Products**

Thermal decomposition can lead to release of irritating gases and vapors.

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects**

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute Toxicity****Product Information** No acute toxicity information is available for this product**Component Information****Chronic Toxicity****Carcinogenicity** There are no known carcinogenic chemicals in this product

<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	No information available
<b>Reproductive Effects</b>	No information available.
<b>Developmental Effects</b>	No information available.
<b>Target Organs</b>	No information available.
<b>Endocrine Disruptor Information</b>	None known

**SECTION 12. ECOLOGICAL INFORMATION****Toxicity****Ecotoxicity effects** Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**Results of PBT and vPvB assessment****Other adverse effects**

No information available

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste from Residues / Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging** Empty containers should be taken to local recyclers for disposal

**SECTION 14. TRANSPORT INFORMATION**

**IMDG/IMO** Not regulated

**ADR** Not regulated

**IATA** Not regulated

**SECTION 15. REGULATORY INFORMATION**

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

**International Inventories**

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Ferrate(4-), hexakis(cyano-C)-, tetraammonium, (OC-6-11)-	238-476-9	-		X	-	X	-	-	X	-	X

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**CHINA** - China Inventory of Existing Chemical Substances

**AICS** - Inventory of Chemical Substances

**KECL** - Existing and Evaluated Chemical Substances

**Chemical Safety Assessment**

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**SECTION 16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R20/21 - Harmful by inhalation and in contact with skin

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Revision Summary Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet