

Revision Date 19-Apr-2012

Revision Number 4

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

### Product Identifier

Product Description:

Mercury(II) cyanide

Cat No.

196900000; 196900050; 196901000; 196905000

Synonyms

Mercuric cyanide

### 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 oral toxicity	Category 2
Acute dermal toxicity	Category 1
Acute Inhalation Toxicity - Vapors	Category 1
Specific target organ systemic toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

### 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)

T+ - Very toxic

N - Dangerous for the environment

R-phrases

R32 - Contact with acids liberates very toxic gas

R33 - Danger of cumulative effects

Risk Combination Phrases

R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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**SECTION 2. HAZARDS IDENTIFICATION**
**Label Elements**

**Signal Word**
**Danger**
**Hazard Statements**

H300 - Fatal if swallowed  
 H310 - Fatal in contact with skin  
 H373 - May cause damage to organs through prolonged or repeated exposure  
 H410 - Very toxic to aquatic life with long lasting effects  
 H330 - Fatal if inhaled  
 EUH032 - Contact with acids liberates very toxic gas

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

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician  
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
 P361 - Remove/Take off immediately all contaminated clothing  
 P302 + P350 - IF ON SKIN: Gently 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  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P273 - Avoid release to the environment

**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.
Mercuric cyanide 592-04-1	EEC No. 209-741-6	99	592-04-1	T+; R26/27/28 R32 N; R50-53 T+; R26/27/28 R33 N; R50-53	Acute Tox. 2 (H300) Acute Tox. 1 (H310) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-

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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.

#### **Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

#### **Ingestion**

Call a physician immediately. Clean mouth with water.

#### **Inhalation**

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.

#### **Notes to Physician**

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

Non-combustible.

### Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 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

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## Methods and material for containment and cleaning up

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

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe dust. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Use only in area provided with appropriate exhaust ventilation. Minimize dust generation and accumulation.

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from direct sunlight. Keep locked-up.

### Specific End Uses

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure limits

##### Component

Mercuric cyanide

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 VME: 0.1 mg/m <sup>3</sup> 8 heures. Hg Skin		Skin VLA-ED: 0.025 mg/m <sup>3</sup> 8 horas

##### Component

Mercuric cyanide

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 2 mg/m <sup>3</sup> 8 Stunden. inhalable fraction MAK: 0.02 mg/m <sup>3</sup> 8 Stunden. inhalable fraction Skin Peak: 2 mg/m <sup>3</sup> Peak: 0.16 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> 8 Stunden. inhalable fraction exposure factor 8	TWA: 0.025 mg/m <sup>3</sup> 8 horas Skin		

##### Component

Mercuric cyanide

Austria	Denmark	Switzerland	Poland	Norway
Skin STEL: 0.1 mg/m <sup>3</sup> 15 Minuten STEL: 0.4 mg/m <sup>3</sup> 15 Minuten TWA: 0.01 mg/m <sup>3</sup> 8 Stunden TWA: 0.1 mg/m <sup>3</sup> 8 Stunden		Skin STEL: 0.8 mg/m <sup>3</sup> 15 Minuten MAK: 0.01 mg/m <sup>3</sup> 8 Stunden MAK: 0.1 mg/m <sup>3</sup> 8 Stunden		TWA: 5 mg/m <sup>3</sup> 8 timer TWA: 0.02 mg/m <sup>3</sup> 8 timer Skin

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Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Mercuric cyanide			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

Ensure adequate ventilation, especially in confined areas

### Personal protective equipment

#### Eye Protection

Goggles

#### Hand Protection

Protective gloves

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

#### 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

White

### odor

odorless

### pH

5 50 g/l aq.sol.

### Vapor Density

8.7

### Boiling Point/Range

No information available.

### Melting Point/Range

No information available.

### Decomposition temperature

320 °C

### Flash Point

No information available.

### Autoignition Temperature

No information available.

### Water Solubility

93 G/L IN WATER (14°C)

### Specific Gravity

3.996

### Molecular Formula

C2 Hg N2

### Molecular Weight

252.63

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

### Chemical Stability

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Hygroscopic. Light sensitive.

## Possibility of Hazardous Reactions

**Hazardous Polymerization** No information available.  
**Hazardous Reactions .** No information available.

## Conditions to Avoid

Exposure to light, Incompatible products, Exposure to moist air or water.

## Incompatible Materials

Strong oxidizing agents, Strong acids, Fluorine, Metals.

## Hazardous Decomposition Products

Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen cyanide (hydrocyanic acid).

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Mercuric cyanide	26 mg/kg ( Rat )		

#### Chronic Toxicity

**Carcinogenicity** There are no known carcinogenic chemicals in this product

**Sensitization** No information available.  
**Mutagenic Effects** No information available  
**Reproductive Effects** No information available.  
**Developmental Effects** No information available.  
**Target Organs** No information available.  
**Endocrine Disruptor Information** None known

## SECTION 12. ECOLOGICAL INFORMATION

### Toxicity

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**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

## 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**

<b>UN-No</b>	1636
<b>Hazard Class</b>	6.1
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	MERCURY CYANIDE

**ADR**

<b>UN-No</b>	1636
<b>Hazard Class</b>	6.1
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	MERCURY CYANIDE

**IATA**

<b>UN-No</b>	1636
<b>Hazard Class</b>	6.1

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## SECTION 14. TRANSPORT INFORMATION

Packing Group II  
Proper Shipping Name MERCURY CYANIDE

## 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
Mercuric cyanide	209-741-6	-		X	-	X	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

## SECTION 16. OTHER INFORMATION

#### Full text of R-phrases referred to under sections 2 and 3

R32 - Contact with acids liberates very toxic gas

R33 - Danger of cumulative effects

R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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Revision Summary

Reason for revision Not applicable

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





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## SECTION 16. OTHER INFORMATION

### 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