

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

SECTION 1. IDENTIFICATION

Product name : Potassium hexacyanoferrate(II) trihydrate

Number : 000000020966

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : crystalline

Color : yellow

Odor : odourless

Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonised System (GHS).

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTSFormula : $\text{C}_6\text{FeK}_4\text{N}_6 \cdot 3\text{H}_2\text{O}$

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Potassium hexacyanoferrate(II)-3-hydrate	14459-95-1	100.00 %

SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area.
- Inhalation : Remove to fresh air. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician.
- Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician.
- Ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician immediately.

Notes to physician

- Most important symptoms/effects, acute and delayed : No information available.
- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder
- Specific hazards during firefighting : In case of fire hazardous decomposition products may be produced such as:
Potassium oxide
nitrogen oxides
Hydrogen cyanide (hydrocyanic acid)
Carbon oxides
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons must be kept away.
Ensure adequate ventilation.
Avoid dust formation.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
Discharge into the environment must be avoided.
Do not flush into surface water or sanitary sewer system.
Do not allow run-off from fire fighting to enter drains or water courses.
- Methods and materials for containment and cleaning up : Use mechanical handling equipment.
Sweep up and shovel into suitable containers for disposal.
Dispose of in accordance with local regulations.

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Avoid dust formation.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.

Further information on storage conditions : Keep away from heat.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.

Eye protection : Safety glasses with side-shields

Hand protection : Protective gloves
Gloves must be inspected prior to use.
Replace when worn.

Skin and body protection : Wear suitable protective equipment.
Wear as appropriate:
Protective suit

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

equipment.

Hygiene measures : Take off all contaminated clothing immediately.
Remove and wash contaminated clothing before re-use.
Keep working clothes separately.
Wash hands before breaks and at the end of workday.
When using do not eat or drink.

Exposure Guidelines

Contains no substances with occupational exposure limit values.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : crystalline

Color : yellow

Odor : odourless

Odor threshold : Note: No data available

Melting point/range : ca. 70 °C
Note: Elimination of water of crystallisation

Boiling point/boiling range : Note: No data available

Flash point : Note: Not applicable

Evaporation rate : Note: No data available

Flammability : The product is not flammable.

Lower explosion limit : Note: Not applicable

Upper explosion limit : Note: Not applicable

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

Vapor pressure : Note: No data available

Vapor density : Note: No data available

Density : ca. 1.85 g/cm³ at 20 °C

Water solubility : 289 g/l at 20 °C

Partition coefficient:
n-octanol/water : Note: No data available

Ignition temperature : Note: Not applicable

Decomposition temperature : 60 °C

Viscosity, dynamic : Note: No data available

Viscosity, kinematic : Note: No data available

Molecular weight : 422.39 g/mol

Bulk density : ca. 1,100 kg/m³**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous
reactions : Hazardous polymerisation does not occur.

Conditions to avoid : No information available.

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

Incompatible materials	: Strong acids Strong oxidizing agents
Hazardous decomposition products	: Potassium oxide nitrogen oxides Hydrogen cyanide (hydrocyanic acid) Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50: > 5,110 mg/kg Species: Rat
Acute inhalation toxicity	: Note: No data available
Acute dermal toxicity	: LD50: > 2,000 mg/kg Species: Rat Note: No data available
Skin irritation	: Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404 Test substance: anhydrous substance
Eye irritation	: Species: Rabbit Result: slight irritation Method: OECD Test Guideline 405 Test substance: anhydrous substance Note: According to the classification criteria of the European Union, the product is not considered as being an eye irritant.
Sensitisation	: Species: Mouse Result: non-sensitizing Test substance: anhydrous substance

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

Genotoxicity in vitro : Test Method: Ames test
Result: negative

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : LC50: > 100 mg/l
Exposure time: 96 h
Species: Cyprinus carpio (Carp)
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50: > 100 mg/l
Exposure time: 96 h
Species: Daphnia magna (Water flea)
Test substance: anhydrous substance
Method: OECD Test Guideline 202

Toxicity to algae : Note: No data available

Elimination information (persistence and degradability)

Biodegradability : Note: The methods for determining biodegradability are not applicable to inorganic substances.

Further information on ecology

Additional ecological information : Should not be released into the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

SECTION 14. TRANSPORT INFORMATION**DOT** Not dangerous goods**TDG** Not dangerous goods**IATA** Not dangerous goods**IMDG** Not dangerous goods**SECTION 15. REGULATORY INFORMATION****Inventories**US. Toxic Substances : On TSCA Inventory
Control ActAustralia. Industrial : On the inventory, or in compliance with the inventory
Chemicals Act (AIC), as
amendedCanada. Canadian : All components of this product are on the Canadian DSL
Environmental Protection
Act (CEPA). Domestic
Substances List (DSL)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals : On the inventory, or in compliance with the inventory
Inventory (KECI)Philippines. Inventory of : On the inventory, or in compliance with the inventory
Chemicals and Chemical
Substances (PICCS)China. Inventory of Existing : On the inventory, or in compliance with the inventory
Chemical Substances
(IECSC)New Zealand. Inventory of : On the inventory, or in compliance with the inventory
Chemicals (NZIoC), as
published by ERMA New

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

Zealand

Taiwan Chemical : On the inventory, or in compliance with the inventory
Substance Inventory (TCSI)

National regulatory information

SARA 302 Components : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards : Acute Health Hazard

California Prop. 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 1	1
Flammability	: 1	1
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

Potassium hexacyanoferrate(II) trihydrate**12639-25KG**

Version 1.2

Revision Date 06/27/2022

Print Date 05/11/2023

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Previous Issue Date: 08/06/2020

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group