

SAFETY DATA SHEET

According to JIS Z 7253:2012
Revision Date 12-Nov-2018
 Version 2.01

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name	Dimercury(II) Cyanide Oxide
Product code	133-01342
CAS No	1335-31-5
Formula	Hg(CN) ₂ ·HgO
Manufacturer	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-5964
Supplier	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
Emergency telephone number	+81-6-6203-3741 / +81-3-3270-8571
Recommended uses and restrictions on use	For research purposes
Announcement of company name change	Company name has changed since April 1, 2018. Former name was "Wako Pure Chemical Industries, Ltd."

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Serious eye damage/eye irritation

Skin sensitization

Germ cell mutagenicity

Reproductive Toxicity

Specific target organ toxicity (single exposure)

Category 1 kidneys

Category 3 Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Category 1 central nervous system, kidneys

Category 2B

Category 1

Category 2

Category 2

Category 1, Category 3

Category 1

Pictograms



Signal word

Danger

Hazard statements

H320 - Causes eye irritation

H341 - Suspected of causing genetic defects

H361 - Suspected of damaging fertility or the unborn child
 H335 - May cause respiratory irritation
 H317 - May cause an allergic skin reaction
 H370 - Causes damage to the following organs: kidneys
 H372 - Causes damage to the following organs through prolonged or repeated exposure: central nervous system, kidneys

Precautionary statements-(Prevention)

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required.
- Wash face, hands and any exposed skin thoroughly after handling
- Contaminated work clothing should not be allowed out of the workplace
- Protective gloves
- Do not breathe dust/fume/gas/mist/vapors/spray
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area

Precautionary statements-(Response)

- IF exposed: Call a POISON CENTER or doctor/physician
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- IF ON SKIN: Wash with plenty of soap and water
- If skin irritation or rash occurs: Get medical advice/attention
- Wash contaminated clothing before reuse.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary statements-(Storage)

- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed

Precautionary statements-(Disposal)

- Dispose of contents/container to an approved waste disposal plant

Others

Other hazards Not available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Substance

Formula $\text{Hg}(\text{CN})_2 \cdot \text{HgO}$

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS No.
Dimercury(II) Cyanide Oxide	82.0-87.0	469.21	(1)-151	(1)-151	1335-31-5

Impurities and/or Additives : Not applicable

Section 4: FIRST AID MEASURES**Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
Do not induce vomiting without medical advice.

Protection of first-aiders

Use personal protective equipment as required.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

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

Unsuitable extinguishing media

No information available

Special extinguishing method

No information available

Specific hazards arising from the chemical product

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

Protection of fire-fighters

Wear self-contained breathing apparatus and protective suit

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminant and methods and materials for cleaning up

Do not touch spilled material without suitable protection(See section 8). After material is completely picked up.

Recovery, neutralization

No information available

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling**Technical measures**

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage**Safe storage conditions****Storage conditions**

Store away from sunlight in well-ventilated place at room temperature (preferably cool).
Keep container tightly closed. Store locked up.

Safe packaging material

Glass

Incompatible substances

Strong oxidizing agents

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Dimercury(II) Cyanide Oxide 1335-31-5	0.025 mg/m ³ (水銀として)	ISHL/ACL: 0.025 mg/m ³	TWA: 0.025 mg/m ³ Hg Skin

Personal protective equipment

Respiratory protection	Dust mask
Hand protection	Protection gloves
Eye protection	protective eyeglasses or chemical safety goggles
Skin and body protection	Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

Color	White - slightly brown
Appearance	powder or mass

Odor

No data available

pH

No data available

Melting point/freezing point

No data available

Boiling point, initial boiling point and boiling range

No data available

Flash point

No data available

Evaporation rate:

No data available

Flammability (solid, gas):

No data available

Upper/lower flammability or explosive limits

Upper :

No data available

Lower :

No data available

Vapour pressure

No data available

Vapour density

No data available

Specific Gravity / Relative density

No data available

Solubilities

water : sparingly soluble .

n-Octanol/water partition coefficient:(log Pow)

No data available

Auto-ignition temperature:

No data available

Decomposition temperature:

No data available

Viscosity (coefficient of viscosity)

No data available

Dynamic viscosity

No data available

Section 10: STABILITY AND REACTIVITY

Stability

Stability

Stable under recommended normal conditions.

Reactivity

No data available

Hazardous reactions

None under normal processing

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

Strong oxidizing agents

Hazardous decomposition productsCarbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Mercury compounds, Cyanide**Section 11: TOXICOLOGICAL INFORMATION****Acute toxicity**

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Dimercury(II) Cyanide Oxide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
Dimercury(II) Cyanide Oxide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Skin irritation/corrosion

Chemical Name	Skin corrosion irritation source information
Dimercury(II) Cyanide Oxide	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage source information
Dimercury(II) Cyanide Oxide	Irritating to the human eye.(STTIG, 4th, 2002; HSFS, 1993).

Respiratory or skin sensitization

Chemical Name	Respiratory, Skin sensitization source information
Dimercury(II) Cyanide Oxide	Respiratory sensitization: No data, Skin sensitization: Inorganic mercury compounds and metal mercury (as Hg) have a skin sensitization. (MAK/BAT, 2005; DFGOT, vol.15, 2001).

Reproductive cell mutagenicity

Chemical Name	Mutagenic source information
Dimercury(II) Cyanide Oxide	Mercury and mercury compounds are evaluated to induce chromosomal aberrations in somatic cells in animals in vivo. (ATSDR(1999)).

Carcinogenicity

Chemical Name	Carcinogenicity source information
Dimercury(II) Cyanide Oxide	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Dimercury(II) Cyanide Oxide 1335-31-5		Group 3		

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Dimercury(II) Cyanide Oxide	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Dimercury(II) Cyanide Oxide	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Dimercury(II) Cyanide Oxide	As inorganic mercury compounds, effects on the kidney and central nervous system to humans .(ACGIH-TLV, 2004; EHC, 118, 1988).

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Dimercury(II) Cyanide Oxide	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity No information available

Other data

Chemical Name	Aquatic toxicity -Acute- source information	Aquatic toxicity -Chronic- source information
Dimercury(II) Cyanide Oxide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Persistence and degradability No information available
Bioaccumulative potential No information available
Mobility in soil No information available
Hazard to the ozone layer No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: TRANSPORT INFORMATION

ADR/RID

UN number UN1642
Proper shipping name: Mercury oxycyanide, desensitized
UN classification 6.1
Subsidiary hazard class
Packing group II
Marine pollutant Yes

IMDG

UN number UN1642
Proper shipping name: Mercury oxycyanide, desensitized
UN classification 6.1
Subsidiary hazard class P
Packing group II
Marine pollutant (Sea) Yes
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

IATA

UN number UN1642
Proper shipping name: Mercury oxycyanide, desensitized
UN classification 6.1
Subsidiary hazard class
Packing group II
Environmentally Hazardous Substance Yes

Section 15: REGULATORY INFORMATION

International Inventories

EINECS/ELINCS Listed

TSCA

Listed

Japanese regulations**Fire Service Act**

Firefighting Inhibitor

Poisonous and Deleterious Substances Control Law

Poisonous Substances 2nd. Grade

Industrial Safety and Health Act

Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18)
 Group 2 Specified Chemical Substance
 Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.315

Regulations for the carriage and storage of dangerous goods in ship

Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)

Civil Aeronautics Law

Toxic and Infectious Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)

Marine Pollution Prevention Law

Marine pollutants (P and PP substances)

Pollutant Release and Transfer Register Law

Class 1

Class 1 - No.

144,237

Water Pollution Control Act

Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1)

Export Trade Control Order

Appendix 2

Air Pollution Control Law

Priority Chemical Substances

Section 16: OTHER INFORMATION**Key literature references and sources for data etc.**

NITE: National Institute of Technology and Evaluation (JAPAN)
<http://www.safe.nite.go.jp/japan/db.html>
 IATA dangerous Goods Regulations
 RTECS:Registry of Toxic Effects of Chemical Substances
 Japan Industrial Safety and Health Association GHS Model SDS
 Dictionary of Synthetic Organic Chemistry, SSOCJ, Koudansha Scientific Co.Ltd.
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.
 etc

Disclaimer

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, 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.

GHS Classification is according to JIS Z7252(2014). *JIS: Japanese Industrial Standards

Product information

You might get a product which indicates a former company name, during the period of transition.

End of Safety Data Sheet