Date of issue : 18 August, 2003
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Safety Data Sheet

1. Product and company identification

Product name	:	Dicyanodiamide
Name of manufacturer	:	KANTO CHEMICAL CO., INC.
Address	:	2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, Japan
Name of section	:	Reagent division, catalog and products information section
Telephone number	:	+81-3-6214-1090
Facsimile number	:	+81-3-3241-1047
Mail address	:	BC32@gms.kanto.co.jp
SDS No.	:	10188

2. Summary of danger and Hazard

GHS classification

Human health hazard

Acute toxicity(oral) : Out of category

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2A

Carcinogenicity : Out of category

Environmental hazard

Hazardous to the aquatic environment-acute hazard : Out of category

Hazardous to the aquatic environment-chronic hazard : Out of category

Pictogram or symbol



Signal word : Warning

Hazard statement : Causes skin irritation
Causes serious eye irritation

Cautions

Safety measurements : Wear appropriate protective gloves, glasses, clothing, face shield, or mask.
Wash protective equipment thoroughly after use.

First-aid measures : If in eyes : Rinse cautiously with water for several minutes. Get medical treatment.
If on skin : Remove contaminated clothing and the substance. If skin irritation occurs, get medical treatment.
Wash hands thoroughly after handling.

Environmental effects : Not available

Physical and Chemical hazards

: Decomposes on heating. No particular hazards known.

Class name of hazardous chemicals for SDS in Japan

: Not applicable

3. Composition/Information on ingredients

Substance/Mixture : Substance

Chemical name or commercial name

: Dicyanodiamide

Synonyms : 1-Cyanoguanidine

Ingredients and composition

: Dicyanodiamide min. 98.0%

Chemical formula : NH2C(:NH)NHCN

CAS No. : 461-58-5

TSCA Inventory : Registered

EINECS No. : 2073128

4. First aid measures

Inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.

Skin contact : Wash the affected areas under running water.

Eye contact : Wash the affected areas under running water.

Ingestion : Give the victim water or salt water and induce vomiting. If necessary, get medical attention.

5. Fire fighting measures

Extinguishing media : Water, dry chemical powder, carbon dioxide, dry sand, foam

Prohibited extinguishing media

: None

Particular fire fighting : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Protection for firefighters

: Firefighters should wear protective equipment.

6. Accidental release measures

Cautions for personnel : Wear proper protective equipment and avoid contact with skin and inhalation of dust. Conduct operations from upwind and evacuate people downwind.

Cautions for environment : Attention should be given to avoid discharge of spilled product into rivers and resulting environmental damage. When diluting spill with large amounts of water, discharge of untreated wastewater into the environment must be avoided.

Removal measure : Sweep up the chemical and place in a chemical waste container.

7. Cautions of handling and storage

Handling

Engineering measures : If necessary, wear proper protective equipment to avoid contact with skin or inhalation of dust.

Cautions for safety handling

: Avoid formation of dust and aerosols.

Storage

Adequate storage condition

: Store in a dark, cool place and tightly closed.

Safety adequate container materials

: Glass, polyethylene, polypropylene

8. Exposure control/Personal protection

Engineering measures : Use with an enclosed system or a local exhaust ventilation.

Control parameters

ACGIH(2015) : Not established

Protective equipment

Respiration protective equipment

: If necessary, wear dust mask

Hands protective equipment

: Impervious protective gloves

Eyes protective equipment

: Safety goggles

9. Physical and chemical properties

Appearance	:	Crystalline powder
Color	:	White
Odor	:	Odorless
Boiling point	:	Decomposition(more than 360℃)
Melting point	:	209℃
Density	:	1.40g/cm3 (25℃)
Solubility		
Solubility in solvents	:	Water ; 2.5%(15℃)
		Organic solvents ; Slightly soluble in ethanol.

10. Stability and reactivity

Stability	:	Stable under normal conditions.
Reactivity	:	May react with strong oxidizing substances.
Incompatible conditions	:	Light, heat

Hazardous decomposition products

: Carbon monoxide, nitrogen oxides

11. Toxicological information

Acute toxicity : Oral : Out of category

Dermal : Not possible to classify because of insufficient data.

Inhalation(vapor) : Not possible to classify because of insufficient data.

Inhalation(dust, mist) : Not possible to classify because of insufficient data.

rat oral LD50>30000mg/kg

Skin corrosion/irritation : Causes skin irritation(category 2)
Since it is irritating to the skin of guinea pigs, it was classified as category 2.

Serious eye damage/eye irritation
: Causes serious eye irritation(category 2A)
There is no data on eye irritation, but since skin corrosiveness and irritation are category 2, it was classified as category 2A.

Respiratory sensitization or Skin sensitization
: Respiratory sensitization : Not possible to classify because of insufficient data.

Skin sensitization : Not possible to classify because of insufficient data.

Mutagenicity : Not possible to classify because of insufficient data.
The Chinese hamster lung cell in vitro chromosomal aberration test was negative, but there were no other data and it was not possible to classify.

Carcinogenic effects : Out of category
No carcinogenicity was observed in a 2-year carcinogenicity study using mixed diets in rats.

Effects on the reproductive system
: Not possible to classify because of insufficient data.

Specific target organ systemic toxicity single exposure
: Not possible to classify because of insufficient data.

Specific target organ systemic toxicity repeated exposure
: Not possible to classify because of insufficient data.

Aspiration hazard : Not possible to classify because of insufficient data.

12. Ecological information

Ecotoxicity

Fish toxicity : Acute aquatic toxicity : Out of category

Chronic aquatic toxicity : Out of category

Japanese killifish LC50>100mg/l/96H

Persistence and degradability
: It is a substance judged that there is no resolvability by a microbe etc.

Bioaccumulative potential : Low or no bioaccumulative potential in fish or shells

13. Disposal consideration

Residual disposal : Mixed with flammable organic solvents and burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

Containers : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

UN class	:	It is not regulated under UN regulations.

15. Regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

References: Dictionary of Organic Compounds, The society of Synthetic Organic Chemistry, Kodansha Ltd.(1985)

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully.The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements.The information herein is only provision of information, and it does not represent a guarantee the properties of the product.The Safety Data Sheet(SDS) is prepared based on JIS Z7253, and it has the same required elements on the Material Safety Data Sheet(MSDS) which is prepared based on JIS Z7250:2010.