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Material Safety Data Sheet

1. Product and company identification

Product name	:	Praseodymium(Ⅲ) chloride heptahydrate
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
MSDS No.	:	32636

2. Summary of danger and Hazard

GHS classification

Physical and chemical hazard

Flammable solids	:	Out of category
Pyrophoric solids	:	Out of category
Self-heating substances and mixtures	:	Out of category

Human health hazard

Acute toxicity(oral)	:	Out of category
Skin corrosion・Irritation	:	Out of category
Serious eye damage・Eye irritation	:	Category 2B
Signal word	:	Warning
Hazard statement	:	Causes eye irritation

Cautions

First-aid measures	:	If in eyes : Rinse cautiously with water for several minutes. Get medical treatment. Wash hands thoroughly after handling.

3. Composition/Information on ingredients

Substance/Mixture	:	Substance
Chemical name or commercial name	:	Praseodymium(Ⅲ) chloride heptahydrate
Ingredients and composition	:	Praseodymium(Ⅲ) chloride heptahydrate min. 99.95%
Chemical formula	:	$PrCl_3 \cdot 7H_2O$
CAS No.	:	10025-90-8
TSCA Inventory	:	Registered
EINECS No.	:	-

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 for at least 15 minutes. Get medical treatment.

Ingestion : Give the victim water or salt water and make him vomit. Get medical attention.

5. Fire fighting measures

Extinguishing media : This product is noncombustible.

Prohibited extinguishing media

: None

Particular fire fighting : Firefighters should wear proper protective equipment because toxic chlorine gas will emit upon combustion.

The product is noncombustible. In case of surrounding fire, move containers from fire areas if it can be done without risk. If it cannot be done, 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 equipment and avoid contact with skin and inhalation of dust. Keep away personnel except for authorized ones from spillage area by stretching ropes.

Cautions for environment : Attention should be given not to cause damage to the environment by flowing of spillage to rivers. In case of the dilution of copious water, do not cause damage to the environment by untreated wastewater.

Removal measure : Sweep up in a chemical waste container. Flush residual area with copious amounts of water.

7. Cautions of handling and storage

Handling

Engineering measures : If necessary, wear proper protective equipment not to contact with skin or inhale the dust.

Cautions for safety handling

: Handle the chemical not to generate aerosol or dust.

Storage

Adequate storage condition

: As the chemical has hygroscopic property, keep the bottle tightly closed and store at a refrigerator. (0-6℃)

Safety adequate container materials

: Glass, polyethylene, polypropylene

8. Exposure control/Personal protection

Engineering measures : Install a local ventilation system under dusty condition.

Control parameters

ACGIH(2009) : Not established

Protective equipment

Respiration protective equipment
: If necessary, wear a chemical cartridge respirator.
Hands protective equipment
: Impervious protective gloves
Eyes protective equipment
: Safety goggles

9. Physical and chemical properties

Appearance	:	Powder
Color	:	Yellow green - green
Odor	:	Odorless
Boiling point	:	Decomposition
Melting point	:	115℃
Flash point	:	Noncombustible
Specific gravity	:	2.251g/ml(16℃)
Solubility		
Solubility in solvents	:	Water ; 77%(14℃)
Other data	:	Soluble in hydrochloric acid

10. Stability and reactivity

Stability	:	Stable under normal usage.
Reactivity	:	May react with oxidizing substances.
Incompatible conditions	:	Light, heat
Incompatible materials	:	Oxidizing substances
Hazardous decomposition products		
	:	Chlorine, hydrogen chloride

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.
		mouse oral LD50=4500mg/kg
Skin corrosiveness	:	Out of category
		-(Empty)-
Irritation to skin, eyes	:	Causes eye irritation(category 2B)
		-(Empty)-
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.
Carcinogenic effects	:	Not possible to classify because of insufficient data

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.

-(Empty)-

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 : Not possible to classify because of insufficient data.

Chronic aquatic toxicity : Not possible to classify because of insufficient data.

Rediualbility and degradability
: Not available

Ecorediualbility : Not available

13. Disposal consideration

Residual disposal

Precipitation method : Make 5% of the chemical water solution and add alkaline solution like sodium hydroxide solution to precipitate praseodymium hydroxide.

Filter the precipitate and bury in a landfill site approved for hazardous waste disposal. Or consult approved disposal companies.

<Note> : The pH should be more than 8.5, the precipitation does not form completely below pH 8.5.

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

14. Transport information

UN class : Not applicable

15. Regulatory information

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

16. Other information

References

Encyclopaedia Chemica, Kyoritsu Shuppan Co., Ltd.(1963)

Dangerous Properties of Industrial Materials,6th ed. N.I.Sax Van Nostrand Reinhold Company(1984)

Handbook of 15710 Chemical Products, The Chemical Daily Co.(2010)

The information contained herein is based on several references and the present state of our knowledge. However the MSDS 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.