Material Safety Data Sheet

1. Product and company identification

Product name	:	Potassium nonafluorobutanesulfonate
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.	:	33011

2. Summary of danger and Hazard

GHS classification

Physical and chemical hazard

Flammable solids	:	Out of category
Pyrophoric solids	:	Out of category

Human health hazard

Acute toxicity(oral)	:	Out of category
Acute toxicity(dermal)	:	Out of category
Skin corrosion・Irritation	:	Out of category
Serious eye damage・Eye irritation	:	Category 1
Skin sensitization	:	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	:	Danger
Hazard statement	:	Causes serious eye damage

Cautions

Safety measurements	:	Wear appropriate protective gloves, glasses, clothing, face shield, or mask.
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. Immediately get medical treatment.

3. Composition/Information on ingredients

Substance/Mixture	:	Substance
Chemical name or commercial name		
	:	Potassium nonafluorobutanesulfonate
Ingredients and composition		
	:	Potassium nonafluorobutanesulfonate min. 98.0%
Chemical formula	:	C4F9SO3K
CAS No.	:	29420-49-8
TSCA Inventory	:	Not 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.
Ingestion	:	Give the victim water or salt water and induce vomiting. If necessary, get medical attention.

5. Fire fighting measures

Extinguishing media	:	This product is noncombustible.
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 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
: Store in a dark, cool place and tightly closed.
Safety adequate container materials
: Glass, polyethylene, polypropylene

8. Exposure control/Personal protection

Engineering measures : Use only with adequate ventilation and in closed systems.
Control parameters
ACGIH(2009) : 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 : Powder
Color : White
Odor : Slight odor
Boiling point : Decomposition
Melting point : 271℃
Specific gravity : 2.08g/ml
Solubility
Solubility in solvents : Water ; 4.6%(20℃)
Organic solvents ; Soluble in acetone, methanol.

10. Stability and reactivity

Stability : Stable under normal usage.
Reactivity : May react with strong oxidizing substances.
Incompatible conditions : Light, heat
Incompatible materials : Oxidizing substances
Hazardous decomposition products
: Carbon monoxide, Fluoride, Hydrogen fluoride, sulfur oxides.

11. Toxicological information

Acute toxicity : Oral : Out of category
Dermal : Out of category
Inhalation(vapor) : Not possible to classify because of insufficient data.
Inhalation(dust, mist) : Not possible to classify because of insufficient data.
rat oral LD50>2000mg/kg
rat skin LD50>2000mg/kg

Skin corrosiveness : Out of category

Based on evidence of no irritation observed in rabbit skin irritation tests.

Irritation to skin, eyes : Causes serious eye damage(category 1)

In eye irritation test in rats, irreversible reaction was recognized.

Respiratory sensitization or Skin sensitization

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

May cause an allergic skin reaction(category 1)

This substance causes sensitization of guinea pig skin.

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.

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

Fish (bluegill) LC50=6452mg/l/96H

Rediualbility and degradability

: Not available

Ecorediualbility : Not available

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.

<Note> : Alkaline solution should be used for cleaning liquid of the scrubber.

The incinerator should be suitable for burning organic halide compounds.

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　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 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.