

Material Safety Data Sheet

1. Product and company identification

Product name : Tributylmethylphosphonium bis(trifluoromethanesulfonyl)imide
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. : 40336

2. Summary of danger and Hazard

GHS classification

Physical and chemical hazard

Flammable liquids : Out of category
Pyrophoric liquids : Out of category

3. Composition/Information on ingredients

Substance/Mixture : Substance
Chemical name or commercial name : Tributylmethylphosphonium bis(trifluoromethanesulfonyl)imide
Synonyms : P4441-TFSI
Ingredients and composition : Tributylmethylphosphonium bis(trifluoromethanesulfonyl)imide min. 98%
Chemical formula : $(C_4H_9)_3(CH_3)P \cdot N(SO_2CF_3)_2$
CAS No. : —
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. If necessary, get medical treatment.
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 : Dry chemical powder, carbon dioxide, dry sand, foam
Prohibited extinguishing media : Water spray



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 vapor. Keep away personnel and perform the operation at upwind area.

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 : Absorb spill with inert material (e.g., diatomaceous earth, sand) and flush residual area with copious amounts of water.

7. Cautions of handling and storage

Handling

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

Cautions for safety handling

: Handle at a well ventilated place.

Cautions

: Do not contact with oxidizing substances.

Storage

Adequate storage condition

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

Safety adequate container materials

: Glass, fluorine resin

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 chemical cartridge respirator with an organic vapor cartage

Hands protective equipment

: Impervious protective gloves

Eyes protective equipment

: Safety goggles

9. Physical and chemical properties

Appearance : Liquid

Color : Colorless-pale yellow

Odor : Odorless

Boiling point : Decomposition(379°C)



Melting point : 16°C
Flash point : Not available
Specific gravity : 1.28g/ml (25°C)
Solubility
 Solubility in solvents : Water ; Insoluble
 Organic solvents ; Soluble in ethanol, acetone, chloroform, insoluble in hexane.
Other data : Electric conductivity : 0.42mS/cm (25°C)
 Viscosity : 207mPas (25°C)

10. Stability and reactivity

Stability : May tarnish by sunlight
Reactivity : May react with oxidizing substances.
Incompatible conditions : Light, heat
Incompatible materials : Oxidizing substances
Hazardous decomposition products
 : Carbon monoxide, Nitrogen oxide, Sulfur oxides, Fluoride, Hydrogen fluoride

11. Toxicological information

Acute toxicity : Oral : Not possible to classify because of insufficient data.
 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.
 If inhaled the dust, cause mucous membrane irritation of nose, throat, bronchi.
Skin corrosiveness : Not possible to classify because of insufficient data.
 This substance has irritation of skin, but impossible to classify due to insufficient data.
Irritation to skin, eyes : Not possible to classify because of insufficient data.
 This substance has irritation of eye, but impossible to classify due to insufficient data.
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.
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

Mobility : 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 Handbook of Poisonous and Deleterious substances, revised and enlarged edition, Yakumu Kohosa(2000)

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.

