Date of issue : 26 April,2004

Material Safety Data Sheet

1. Product and company identification

Product name	:	1-Butyl-3-methylimidazolium hexafluorophosphate
Name of manufacturer	:	KANTO CHEMICAL CO., INC.
Address	:	11-5 Nihonbashi Honcho 3-Chome, Chuo-Ku, Tokyo 103-0023 Japan
Name of section	:	Reagent division, catalog and products information section
Telephone number	:	+81-3-3639-8301
Facsimile number	:	+81-3-3639-9435
MSDS No.	:	05064

2. Composition/Information on ingredients

Substance/Mixture	:	Substance
Chemical name or commercial name	:	1-Butyl-3-methylimidazolium hexafluorophosphate
Ingredients and composition	:	1-Butyl-3-methylimidazolium hexafluorophosphate min. 97%
Chemical formula	:	CH3C3H3N2C4H9PF6
CAS No.	:	174501-64-5
TSCA Inventory	:	Not registered
EINECS No.	:	-

3. Summary of danger and Hazard

Adverse human health hazards	:	Cause irritation of skin and eyes. If inhaled vapor, cause irritation of nose, throat, and bronchi.
Environmental effects	:	Not available
Physical and Chemical hazards	:	May burn when contact with fire or spark.
Class name of hazardous chemicals for SDS in Japan	:	Not applicable

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	:	Remove the spillage by absorption with diatomaceous earth or dry sand. Or else dilute with water gradually and neutralize with calcium hydroxide solution or sodium carbonate solution then wash thoroughly with water.

7. Cautions of handling and storage

Handling

Engineering measures	:	Wear proper 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, polyethylene, polypropylene

8. Exposure control/Personal protection

Engineering measures	:	Use only with adequate ventilation and in closed systems.
Control parameters	:	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

Physical and chemical properties

Appearance	:	Liquid
Color	:	Yellow
Odor	:	Odorless

Specific temperature or temperature range of physical conditions change

Boiling point	:	Not available
Melting point	:	6.5°C
Flash point	:	Not available
Specific gravity	:	1.373g/ml(20°C)

Solubility

Solubility in solvents	:	Water ; Practically insoluble Organic solvents ; Soluble in acetone, ethanol, dichloromethane.
Other data	:	Viscosity : 272.1cP(25°C)

10. Stability and reactivity

Stability	:	Stable under normal usage.
Reactivity	:	May react with oxidizing substances.
Incompatible conditions	:	Light, heat
Hazardous decomposition products	:	Carbon monoxide, Nitrogen oxide, Fluoride, Hydrogen fluoride

11. Toxicological information

Acute toxicity	:	If inhaled vapor, cause irritation of nose, throat, and bronchi.
Local effect	:	
Irritation to skin, eyes	:	Irritating to skin, eyes.

Chronic and long term toxicity	:	Not available
Carcinogenic effects	:	Listed on neither IARC nor NTP.
Mutagenicity	:	Not available
Teratogenic effects	:	Not available
Effects on the reproductive system	:	Not available

12. Ecological information

Mobility	:	Not available
Rediualbility and degradability	:	Not available
Ecorediualbility	:	Not available
Ecotoxicity		
Fish toxicty	:	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. b). 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

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.