



## Safety Data Sheet

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### Section 1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: EMI-BF4

SDS No. : 2862E-4

Relevant identified uses of the substance or mixture and uses advised against

Research and Development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Chemical Safety Management Department

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

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### Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

**HEALTH HAZARDS**

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

Specific target organ toxicity – repeated exposure: Category 1 (Bone)

(Note) GHS classification without description: Not classified/Classification not possible

Label elements



Signal word: Danger

**HAZARD STATEMENT**

May cause respiratory irritation

Causes damage to organs through prolonged or repeated exposure (Bone)

**PRECAUTIONARY STATEMENT**

**Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

**Response**

Get medical advice/attention if you feel unwell.

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

**Storage**

Store in a well-ventilated place. Keep container tightly closed.

**Disposal**

Dispose of contents/container in accordance with local/national regulation.



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### Section 3. Composition/information on ingredients

#### Mixture/Substance selection:

##### Substance

Ingredient name:1-Ethyl-3-methyl imidazolium tetrafluoroborate

Content (%):95(min)

Chemical formula:C6H11N2BF4

Chemicals No, Japan:5-6244, 1-46

CAS No.:143314-16-3

MW:197.97

Note : The figures shown above are not the specifications of the product.

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### Section 4. First-aid measures

#### Descriptions of first-aid measures

##### General measures

Get medical advice/attention if you feel unwell.

##### IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor/physician if you feel unwell.

##### IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water or shower.

If skin irritation or rash occurs: Get medical advice/attention.

##### IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

##### IF SWALLOWED

Rinse mouth.

Call a POISON CENTER/doctor/physician if you feel unwell.

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### Section 5. Fire-fighting measures

#### Extinguishing media

##### Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

##### Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

#### Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

#### Advice for firefighters

##### Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

##### Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.



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**Section 6. Accidental release measures**

## Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.

Wear proper protective equipment.

## Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

## Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

## Preventive measures for secondary accident

Collect spillage.

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**Section 7. Handling and storage**

## Precautions for safe handling

## Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

## Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing or face protection.

When using do not eat, drink or smoke.

## Any incompatibilities

See "10.Stability and Reactivity"

## Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

## Storage

## Conditions for safe storage

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

Keep under lock and key.

## Container and packaging materials for safe handling

Glass

Stainless steel

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**Section 8. Exposure controls/personal protection**

## Control parameters

## Exposure controls

## Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

## Individual protection measures



- Respiratory protection
  - Wear respiratory protection.
- Hand protection
  - Wear protective gloves.
- Eye protection
  - Wear eye/face protection.

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## Section 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

- Physical state: Liquid(20°C)
- Color: Colorless to light yellow, Clear
- Odor: Odourless
- Melting point/Freezing point: 14.6°C
- Boiling point or initial boiling point data is not available.
- Boiling range data is not available.
- Flammability (gases, liquids and solids) data is not available.
- Lower and upper explosion limit/flammability limit data is not available.
- Flash point data is not available.
- Auto-ignition temperature data is not available.
- Decomposition temperature data is not available.
- pH data is not available.
- Kinematic viscosity data is not available.
- Solubility:
  - Solubility in water: Soluble
  - n-Octanol/water partition coefficient data is not available.
  - Vapor pressure data is not available.
  - Density and/or relative density: 1.28g/cm<sup>3</sup> (20°C)
  - Relative vapor density (Air=1) data is not available.
  - Particle characteristics data is not available.

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## Section 10. Stability and Reactivity

- Reactivity
  - Not available.
- Chemical stability
  - Stable under normal storage/handling conditions.
- Possibility of hazardous reactions
  - React with oxidizing agents.
- Conditions to avoid
  - Contact with incompatible materials.
  - Contact with fire source.
- Incompatible materials
  - Oxidizing agents
- Hazardous decomposition products
  - Carbon oxides, Nitrogen oxides, Fluorine, Hydrogen fluoride

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## Section 11. Toxicological Information

- Information on toxicological effects
  - Acute toxicity data is not available.
- Irritant properties
  - Skin corrosion/irritation data is not available.
  - Serious eye damage/irritation data is not available.



Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

Specific target organ toxicity (STOT)

STOT-single exposure

[Data for components of the product]

[cat.3 (respiratory tract irritation)]

[Company proprietary data]

(1-Ethyl-3-methyl imidazolium tetrafluoroborate)

Respiratory tract irritation (ACGIH, 2005: (As fluoride) may cause respiratory irritation.)

STOT-repeated exposure

[Data for components of the product]

[cat.1]

[Company proprietary data]

(1-Ethyl-3-methyl imidazolium tetrafluoroborate)

(As fluoride) Bone (ACGIH, 2005)

Aspiration hazard data is not available.

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## Section 12. Ecological Information

Toxicity

Toxicity data is not available.

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

Bioaccumulative potential data is not available.

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

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## Section 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

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## Section 14. Transport Information

UN Number or ID Number : Not applicable

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : Not applicable

IATA (Dangerous Goods Regulations)

UN Number or ID Number : Not applicable

Environmental hazards

Marine pollutants (yes/no) : no

MARPOL Annex V - HME (Harmful to the Marine Environment)

Specific target organ toxicity - repeated exposure: cat.1

1-Ethyl-3-methyl imidazolium tetrafluoroborate



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**Section 15. Regulatory Information****Other regulatory information**

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

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**Section 16. Other information****GHS classification and labelling**

STOT – single exposure, Category 3, Respiratory tract irritation: H335 May cause respiratory irritation.

STOT – Repeated exposure, Category 1: H372 Causes damage to organs through prolonged or repeated exposure

**References and sources for data**

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN

IMDG Code, 2020 Edition (Incorporating Amendment 40–20)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2022 TLVs and BEIs. (ACGIH)

Supplier's data/information

**General Disclaimer**

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2021).