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# Safety Data Sheet

Section 1. Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: Tetrabutylammonium bromide SDS No. : 7649E-2
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

### Section 2. Hazards identification

GHS classification and label elements of the product Classification of the substance or mixture HEALTH HAZARDS

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2

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



Signal word: Warning HAZARD STATEMENT H315 Causes skin irritation H319 Causes serious eye irritation PRECAUTIONARY STATEMENT Prevention P264 Wash contaminated parts thoroughly after handling. P280 Wear protective gloves. P280 Wear eye protection/face protection. Response P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P332 + P313 If skin irritation occurs: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it before reuse. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Specific adverse human health effects

See "11. Toxicological Information".



#### Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name	Content (%)	CAS No.	ENCS	Chemical formula
Tetrabutylammonium bromide	≧99	1643-19-2	1-105; 2-186	[CH3(CH2)3]4NBr

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

### Section 4. First-aid measures

Descriptions of first-aid measures

#### 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

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

Wash with plenty of soap and water.

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.

#### 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

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

Runoff from fire control or dilution water may cause pollution.

See "10.Stability and Reactivity".

# 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 a full facepiece operated in the positive pressure mode.



Section 6. Accidental release measures							
Personnel precautions, protective equipment and emergency procedures Keep unauthorized personnel away. Ventilate area until material pick up is complete. Wear proper protective equipment.							
				Environmental precautions			
				Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not			
				discharged to the environment without being properly handled waste water contaminated.			
Methods and materials for containment and cleaning up							
Sweep up, place in a bag and hold for waste disposal.							
Preventive measures for secondary accident							
Collect spillage.							
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							
Wear protective gloves/protective clothing/eye protection/face protection.							
Wash hands et al thoroughly after handling.							
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.							
Take off contaminated clothing and wash it before reuse.							
Storage							
Conditions for safe storage							
Keep container tightly closed.							
Store in a cool, dry place. Do not store in direct sunlight.							
Storage in accordance with local/national regulation.							
Container and packaging materials for safe handling							
Use closed unbreakable containers.							

# Section 8. Exposure controls/personal protection

Control parameters

Control value and concentration standard value are not available in ISHA. Adopted value



(Other inorganic and organic dust (third class dust ))

JSOH Respirable dust 2mg/m3, Total dust 8mg/m3

# Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eve wash station should be available.

Washing facilities should be available.

### Individual protection measures

Recommend to use protective equipment in conformity with the standards.

Use appropriate protective equipment in accordance with local/national regulation.

#### Respiratory protection

Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.

#### Hand protection

Wear impervious protective glove.

#### Eye protection

Wear eye/face protection. Wear safety goggles in cases gas is generated.

Skin and body protection

Wear protective clothing.

#### Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties Physical state: Crystal to crystalline powder Color: White Odor: Characteristic odor Melting point/Freezing point: 103~104°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: 600g/L(20°C) Solubility in solvent data is not available. n-Octanol/water partition coefficient data is not available. Vapor pressure data is not available. Density and/or relative density data is not available. Relative vapor density (Air=1) data is not available. Particle characteristics data is not available. Other information Other information is not available.



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

### Section 11. Toxicological Information

Information on toxicological effects Acute toxicity data is not available. Irritant properties Skin corrosion/irritation [Product] Category 2, Causes skin irritation [Data for components of the product] [Company proprietary data] Category 2 Serious eye damage/irritation [Product] Category 2, Causes serious eye irritation [Data for components of the product] [Company proprietary data] Category 2 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 is not available. STOT-repeated exposure data is not available. Aspiration hazard data is not available. Information on other hazards May cause lung disorders by massive inhalation of powdered substance. -e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

# 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.

### 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 as industrial waste. Accordance with local/national regulation.

### Section 14. Transport Information

UN Number or ID Number : Not regulated IMDG Code (International Maritime Dangerous Goods Regulations) UN Number or ID Number : Not regulated IATA (Dangerous Goods Regulations) UN Number or ID Number : Not regulated Environmental hazards Marine pollutants (yes/no) : no

#### Section 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

Applicable

Other regulatory information

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

# Section 16. Other information

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 22nd edit., 2021 UN IMDG Code, 2022 Edition (Incorporating Amendment 41–22) IATA Dangerous Goods Regulations (65th Edition) 2024 2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT) 2024 TLVs and BEIs. (ACGIH) JIS Z 7252 : 2019 JIS Z 7253 : 2019 2023 Recommendation on TLVs (JSOH) Supplier's data/information General Disclaimer

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All chemicals have unknown hazard. Handle the product with care.

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 Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIP), up to FY2023).