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Safety Data Sheet

 Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: 1,1,2,2-Tetrafluoroethyl 2,2,3,3-tetrafluoropropyl ether SDS No. : 8065E-1 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 e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification GHS classification and label elements of the product Classification of the substance or mixture Label elements No GHS label element No Signal word

3. Composition/information on ingredients
Mixture/Substance selection:
Substance
Ingredient name:1,1,2,2-Tetrafluoroethyl 2,2,3,3-tetrafluoropropyl ether
Content (%):99(min)
Chemical formula:C5H4F8O
CAS No.:16627-68-2
MW:232.07
Note : The figures shown above are not the specifications of the product.

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 (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.



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.
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 peace operated
positive pressure mode.
 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.
7. Handling and storage
Precautions for safe handling
Preventive measures
(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 or face protection.
When using do not eat, drink or smoke.
Any incompatibilities
See ″10.Stability and Reactivity″
Storage
Conditions for safe storage
Keep container tightly closed.
Store in a cool, dry place. Do not store in direct sunlight.
Container and packaging materials for safe handling
Glass
Glass



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.

9. Physical and Chemical Properties

Information on basic physical and chemical properties Physical state: Liquid (20°C) Color: Colorless to light yellow, clear Odor: Characteristic odor Melting point/Freezing point data is not available. 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: Insoluble n-Octanol/water partition coefficient data is not available. Vapor pressure data is not available. Density and/or relative density: 1.53g/cm3 (20°C) Relative vapor density (Air=1) data is not available. Particle characteristics data is not available.

10. Stability and Reactivity	
Reactivity	
Not available.	
Chemical stability	
Stable under normal storage/handling conditions.	
Possibility of hazardous reactions	
The vapor is heavier than air.	
Emits toxic fumes in combustion including hydrogen fluoride and fluorophosgene.	
Conditions to avoid	
Contact with incompatible materials.	
Contact with fire source.	
Incompatible materials	
Strong acids, Strong oxidizing agents, Alkaline metals	



Hazardous decomposition products Hydrogen fluoride, Fluorophosgene

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.
STOT
STOT-single exposure data is not available.
STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity

Ecotoxicity 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.

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.

14. Transport Information

UN No. or ID No.: Not applicable Not applicable to IMDG Code Not applicable to IATA Dangerous Goods Regulations Environmental hazards MARPOL Annex III – Prevention of pollution by harmful substances Marine pollutants (yes/no) : no

15. Regulatory Information

Other regulatory information

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



16. Other information

The product is not applicable to GHS classifications.

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN IMDG Code, 2018 Edition (Incorporating Amendment 39–18) IATA Dangerous Goods Regulations (62nd Edition) 2021 2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT) 2021 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 2019).