

Date of issue: 25/01/2019

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: Diphenylphosphoryl azide Product code (SDS NO): 9067E-1 Details of the supplier of the safety data sheet Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD. Address: 3-1, Honmachibashi, Chuo-ku,Osaka 540-0029,JAPAN Division: Safety Management Dept. of Chemicals 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 HEALTH HAZARDS Acute toxicity (Oral): Category 2 Acute toxicity (Dermal): Category 2 Acute toxicity (Inhalation): Category 2 Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2A

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements



Signal word: Danger HAZARD STATEMENT Fatal if swallowed Fatal in contact with skin Fatal if inhaled Causes skin irritation Causes serious eye irritation PRECAUTIONARY STATEMENT Prevention Do not breathe dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. (as specified by the manufacturer/supplier or the competent authority.) Use only outdoors or in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Wash contaminated parts thoroughly after handling. Wear protective gloves or protective clothing. Wear eye protection/face protection. Do not eat, drink or smoke when using this product. Response

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



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IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. 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. Rinse mouth. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Storage Store in a well-ventilated place. Keep container tightly closed. Disposal

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

3. Composition/information on in	ngredients
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Mixture/Substance selection:

Substance

Ingredient name:Diphenylphosphoryl azide Content(%):96(min) Chemical formula:C12H10N3O3P Chemicals No, Japan:3-3359 CAS No.:26386-88-9 MW:275.20 ECNO:247-644-0 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 or doctor/physician if you feel unwell. IF ON SKIN (or hair) Take off immediately all contaminated clothing. Rinse skin with water/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 or doctor/physician if you feel unwell. 5. Fire-fighting measures Extinguishing media Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

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



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Evacuate non-essential personnel to safe area. Special protective equipment and precautions for fire-fighters Wear fire/flame resistant/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. 6. Accidental release measures Personnel precautions, protective equipment and emergency procedures Ventilate area until material pick up is complete. Wear proper protective equipment.

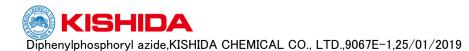
Methods and materials for containment and cleaning up Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container. Preventive measures for secondary accident

Collect spillage.

7. Handling and storage

Precautions for safe handling Preventive measures (Exposure Control for handling personnel) Do not breathe dust/fume/gas/mist/vapors/spray. (Protective measures against fire and explosion) Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Exhaust/ventilator Exhaust/ventilator should be available. Safety treatments Avoid contact with skin. Avoid contact with eyes. Safety Measures/Incompatibility Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing or face protection. Wear eye protection/face protection. When using do not eat, drink or smoke. Conditions for safe storage, including any incompatibilities Recommendation for storage Keep container tightly closed. Store in a cool, dry place. Do not store in direct sunlight.

8. Exposure controls/personal protection
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.
Hand protection
Wear protective gloves.
Eye protection

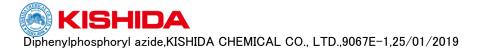


Wear eye/face protection. Safety and Health measures Do not get in eyes, on skin, or on clothing. Wash … thoroughly after handling. Do not eat, drink or smoke when using this product. Take off immediately all contaminated clothing and wash it before reuse.

9. Physical and Chemical Properties Information on basic physical and chemical properties Physical properties Appearance: Liquid Color: Colorless or pale yellow Odor data N.A. pH data N.A. Phase change temperature Initial Boiling Point/Boiling point data N.A. Boiling range data N.A. Melting point/Freezing point data N.A. Decomposition temperature data N.A. Flash point: (Diphenylphosphoryl azide)about 112°C Auto-ignition temperature data N.A. Explosive properties data N.A. Vapor pressure data N.A. Specific gravity/Density data N.A. Solubility Solubility in water: Insoluble n-Octanol/water partition coefficient data N.A.

10. Stability and Reactivity
Reactivity
N.A.
Chemical stability
Stable under normal storage/handling conditions.
Possibility of hazardous reactions
Reacts with moisture or water. This produces toxic and explosible gases (hydrogen azide).
Conditions to avoid
Contact with incompatible materials.
Contact with fire source.
Incompatible materials
Acids, Oxidizing agents, Metals
Hazardous decomposition products
Carbon oxides, Nitrogen oxides, Phosphoric oxide, Hydrogen azide

11. Toxicological Information
Information on toxicological effects
No Acute toxicity data available
No Irritant properties data available
No Allergenic and sensitizing effects data available
No Mutagenic effects data available
No Carcinogenic effects data available
No Teratogenic effects data available



- No reproductive toxicity data available No STOT-single/repeated exposure data available No Aspiration hazard data available
- 12. Ecological Information
 Ecotoxicity
 No Aquatic toxicity data available
 No Persistence and degradability data available
 No Bioaccumulative potential data available
 No Mobility in soil data available
 Ozone depleting chemical data not available

Disposal considerations
 Waste treatment methods
 Dispose of contents/container in accordance with local/national regulation.

14. Transport Information UN No.: 3278 Proper Shipping Name : ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S. Class or division : 6.1 Packing group : II ERG GUIDE No.: 151 Special provisions No.: 43; 274 IMDG Code (International Maritime Dangerous Goods Regulations) UN No.: 3278 **Proper Shipping Name :** ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S. Class or division : 6.1 Packing group : II Special provisions No.: 43; 274 IATA Dangerous Goods Regulations UN No.: 3278 **Proper Shipping Name :** ORGANOPHOSPHORUS COMPOUND, LIQUID, TOXIC, N.O.S. Class or division : 6.1 Hazard labels : Toxic Packing group : II Special provisions No.: A4 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.



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16. Other information

GHS classification and labelling

Acute Tox. 2: H300 Fatal if swallowed

Acute Tox. 2: H310 Fatal in contact with skin

Acute Tox. 2: H330 Fatal if inhaled

Skin Irrit. 2: H315 Causes skin irritation

Eye Irrit. 2A: H319 Causes serious eye irritation

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IMDG Code (Amendment 38–16) 2016

IATA Dangerous Goods Regulations (59th Edition) 2018

Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012) 2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2018 TLVs and BEIs. (ACGIH)

http://monographs.iarc.fr/ENG/Classification/index.php

Supplier's data/information

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

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 2017).