Date of issue: 02/04/2018 Date of revision: 27/11/2019

Safety Data Sheet

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

Product identifier:

Product name: 4-Dimethylaminopyridine Product code (SDS NO): 9101E-2

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD. Address: 3-1, Honmachibashi, Chuo-ku,Osaka ,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 3
Acute toxicity (Dermal): Category 1
Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2A

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 3

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

Label elements



Signal word: Danger HAZARD STATEMENT

Toxic if swallowed

Fatal in contact with skin

Causes skin irritation

Causes serious eye irritation

Harmful to aquatic life

PRECAUTIONARY STATEMENT

Prevention

Avoid release to the environment.

Do not get in eyes, on skin, or on clothing.

Wash contaminated parts thoroughly after handling.

Wear protective gloves or protective clothing.

Wear protective gloves.

Wear eye protection/face protection.

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

Response

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.

Disposal

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

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name:4-Dimethylaminopyridine

Content (%):99(min)

Chemical formula:(CH3)2NC5H4N

Chemicals No, Japan:5-5479

CAS No.:1122-58-3

MW:122.17

ECNO:214-353-5

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.

Immediately call a POISON CENTER or doctor/physician.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

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/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.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Avoid raising dust.

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.

7. Handling and storage

Precautions for safe handling

Preventive measures

(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

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

When using do not eat, drink or smoke.

Any incompatibilities

See "10.Stability and Reactivity"

Advice on general occupational hygiene

Do not get in eyes, on skin, or on clothing.

Wash contaminated parts thoroughly after handling.

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

Take off immediately all 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.

Container and packaging materials for safe handling

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: Crystals or crystalline powder, small mass

Color: White to pale brown Odor: Characteristic odor

pH: 11

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Melting point/Freezing point: 110-114°C

Decomposition temperature data is not available.

Flammability (gases, liquids and solids) data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Vapor pressure data is not available.

Relative vapor density (Air=1) data is not available.

Density and/or relative density data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Soluble (8g/100ml(25°C))

n-Octanol/water partition coefficient data is not available.

No 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

Not available.

Conditions to avoid

Contact with fire source.

Incompatible materials

Not available.

Hazardous decomposition products

Carbon oxides, Nitrogen oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Company proprietary data]

(4-Dimethylaminopyridine)

rat LD50=250 mg/kg

Acute toxicity (Dermal)

[Company proprietary data] (4-Dimethylaminopyridine) rabbit LD50=13 mg/kg

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.

Additional data

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

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Harmful to aquatic life

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

Waste treatment methods

Avoid release to the environment (- if this is not the intended use).

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

14. Transport Information

UN No.: 2811

Proper Shipping Name:

TOXIC SOLID, ORGANIC, N.O.S.

Class or division: 6.1
Packing group: I
ERG GUIDE No.: 154
Special provisions No.: 274

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 2811

Proper Shipping Name:

TOXIC SOLID, ORGANIC, N.O.S.

Class or division: 6.1



Packing group: I

Special provisions No.: 274 IATA Dangerous Goods Regulations

UN No.: 2811

Proper Shipping Name:

TOXIC SOLID, ORGANIC, N.O.S.

Class or division : 6.1 Hazard labels : Toxic Packing group : I

Special provisions No.: A3; A5

Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances

Marine pollutants (yes/no): no

15. Regulatory Information

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

TSCA

4-Dimethylaminopyridine

Other regulatory information

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

16. Other information

GHS classification and labelling

Acute Tox. 3: H301 Toxic if swallowed Acute Tox. 1: H310 Fatal in contact with skin Skin Irrit. 2: H315 Causes skin irritation Eye Irrit. 2A: H319 Causes serious eye irritation

Aquatic Acute 3: H402 Harmful to aquatic life

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN

IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (60th Edition) 2019

Classification, labelling and packaging of substances and mixtures (table 3-1 ECNO 6182012)

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2019 TLVs and BEIs. (ACGIH)

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

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 2018).