Date of issue: 16/01/2020

Safety Data Sheet

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

Product identifier:

Product name: Diisopropylamine

SDS No. : 2622E-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: 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

PHYSICAL AND CHEMICAL HAZARDS

Flammable liquids: Category 2

HEALTH HAZARDS

Acute toxicity (Oral): Category 4

Acute toxicity (Inhalation): Category 3

Skin corrosion/irritation: Category 1A

Serious eye damage/eye irritation: Category 1

Specific target organ toxicity - single exposure: Category 1(respiratory apparatus)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 1

Hazardous to the aquatic environment (Long-term): Category 1

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

Label elements

Signal word: Danger

HAZARD STATEMENT

Highly flammable liquid and vapor

Harmful if swallowed

Toxic if inhaled

Causes severe skin burns and eye damage

Causes serious eye damage

Causes damage to organs after single exposure(respiratory apparatus)

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

Avoid release to the environment.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wash contaminated parts thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not eat, drink or smoke when using this product.

Response

In case of fire: Use appropriate media other than water for extinction.
Collect spillage.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

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

Disposal

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

Specific Physical and Chemical hazards

Highly flammable liquid. Vapor/air mixture may explode.

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name:Diisopropylamine
Content (%):99(min)
Chemical formula:C6H15N
Chemicals No, Japan:2-136
CAS No.:108-18-9
MW:101.19
ECNO:203-558-5

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.
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. Do NOT induce vomiting.

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

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use foam, dry powder, CO2 to extinguish.

Unsuitable extinguishing media

Indoor firefighting equipment or outdoor firefighting equipment
Sprinkler equipment
Dry-powder firefighting equipment - except for phosphate etc.,hydrogen carbonate etc.
Straight stream water extinguisher
Water mist extinguisher
Reinforcing liquid jet extinguisher
Dry-powder extinguisher - except for phosphate etc.,hydrogen carbonate etc.
Bucket of water or tank of water

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.

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.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.

(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/eye protection/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.
Wash contaminated clothing 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

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8. Exposure controls/personal protection
Control parameters
Adopted value
(Diisopropylamine)
ACGIH(1979) TWA: 5ppm (URT irr; eye dam)
Notation
(Diisopropylamine)
Skin
OSHA-PEL
DiisopropylamineTWA: 5ppm, 20mg/m3
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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9. Physical and Chemical Properties
Information on basic physical and chemical properties
Physical state: Liquid
Color: Colorless
Odor: Characteristic odour
pH data is not available.
Boiling point or initial boiling point: 84℃
Boiling range data is not available.

Melting point/Freezing point: -61℃
Decomposition temperature data is not available.
Flammability (gases, liquids and solids) data is not available.
Flash point: (Diisopropylamine)-12.3℃
Auto-ignition temperature: 316℃
Lower and upper explosion limit/flammability limit:
Lower explosion limit: 0.8 vol %
Upper explosion limit: 7.1 vol %
Vapor pressure: 9.3 kPa (20℃)
Relative vapor density (Air=1): 3.5
Density and/or relative density: 0.72
Kinematic viscosity data is not available.
Solubility:
Solubility in water: Insoluble
n-Octanol/water partition coefficient: log Pow1.64
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
Decomposes on burning. This produces toxic fumes including nitrogen oxides. The substance is a strong base. Reacts violently with strong oxidants. This generates fire and explosion hazard. Attacks metals and many plastics. Solutions in water slowly etch glass. (ICSC 0449)
Conditions to avoid
Contact with incompatible materials.
Contact with fire source.
Incompatible materials
Strong oxidizing agents
Hazardous decomposition products
Nitrogen oxides

11. Toxicological Information

Information on toxicological effects
Acute toxicity
Acute toxicity (Oral)
[GHS Cat. Japan, base data]
(Diisopropylamine)
rat LD50=770mg/kg (ACGIH 7th, 2001; PATTY 6th, 2012)
Acute toxicity (Dermal)
[GHS Cat. Japan, base data]
(Diisopropylamine)
rabbit LD50>10000mg/kg (ChemID, Access on Jan. 2018)
Acute toxicity (Inhalation)
[GHS Cat. Japan, base data]
(Diisopropylamine)
vapor: rat LC50=3.4mg/L/4hr (HSDB, Acess on Aug. 2017)
Irritant properties
Skin corrosion/irritation
[GHS Cat. Japan, base data]

(Diisopropylamine)
corrosive (ECHA data, Access on Dec. 2017; SIAP, 2013; HSDB, Access on Aug. 2017)
Serious eye damage/irritation
[GHS Cat. Japan, base data]
(Diisopropylamine)
corrosive (ECHA data, Access on Dec. 2017; SIAP, 2013)
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
[cat.1]
[GHS Cat. Japan, base data]
(Diisopropylamine)
respiratory apparatus (PATTY 6th, 2012)
STOT-repeated exposure data is not available.
Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity
Aquatic toxicity
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects
Aquatic acute toxicity component(s) data
[GHS Cat. Japan, base data]
(Diisopropylamine)
Oscillatoria agardhii EC50=0.21mg/L/72hr (EPA Aquire, 2017, Hanstveit,A.O. et al., 1985)
Water solubility
(Diisopropylamine)
none (ICSC, 1997)
Persistence and degradability
(Diisopropylamine)
Not degrade rapidly (BIOWIN)
Bioaccumulative potential
(Diisopropylamine)
log Pow=1.4 (PHYSPROP DB, 2005)
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
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.: 1158
Proper Shipping Name :
DIISOPROPYLAMINE
Class or division : 3
Subsidiary hazard(s) : 8
Packing group : II
ERG GUIDE No.: 132

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 1158
Proper Shipping Name :
DIISOPROPYLAMINE
Class or division : 3
Subsidiary hazard(s) : 8
Packing group : II

IATA Dangerous Goods Regulations

UN No.: 1158
Proper Shipping Name :
DIISOPROPYLAMINE
Class or division : 3
Subsidiary hazard(s) : 8
Hazard labels : Flamm.liquid & Corrosive
Packing group : II

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : yes

MARPOL Annex V – Prevention of pollution by garbage discharge

Hazardous to the aquatic environment – acute hazard: cat.1
Diisopropylamine
Hazardous to the aquatic environment – long-term hazard: cat.1, 2
Diisopropylamine

Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Noxious Liquid ; Cat. Y
Diisopropylamine

15. Regulatory Information

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

US major regulations

TSCA

Diisopropylamine

Other regulatory information

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

16. Other information

GHS classification and labelling

Flam. Liq. 2: H225 Highly flammable liquid and vapor
Acute Tox. 4: H302 Harmful if swallowed
Acute Tox. 3: H331 Toxic if inhaled
Skin Corr. 1A: H314 Causes severe skin burns and eye damage
Eye Dam. 1: H318 Causes serious eye damage

STOT SE 1: H370 Causes damage to organs after single exposure
Aquatic Acute 1: H400 Very toxic to aquatic life
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects

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 (table3-1 ECNO6182012)
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).