

Safety Data Sheets

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

Product identifier :

Product name : 2-Pyrrolidone

Product code(SDS NO) : 60295jis_E-1

Details of the supplier of the safety data sheet

Manufacturer/Supplier : JUNSEI CHEMICAL CO., LTD.

Address : 1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan

Competent section : Quality Assurance Department

Telephone number : +81-48-986-6161

FAX : +81-48-989-2787

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2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Serious eye damage / eye irritation : Category 2

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

Label elements



Signal word : Warning

HAZARD STATEMENT

Causes serious eye irritation

PRECAUTIONARY STATEMENT

Prevention

Wash contaminated parts thoroughly after handling.

Wear eye protection/face protection.

Response

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.

3. Composition/information on ingredients

Substance/Preparation :

Substances

Ingredient name: 2-Pyrrolidone

content(%): 98.0 <

Chemical formula: C₄H₇NO

Chemicals No, Japan: 5-112

CAS No.: 616-45-5

MW: 85.11

ECNO: 210-483-1

4. First-aid measures

Descriptions of first-aid measures

IF INHALED

Remove victim to fresh air and keep at rest in a position 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.
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 water mist, foam, dry powder, CO₂.

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

Cool container with water spray.

Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.
Wear cold insulating gloves/face shield/eye protection.
Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Ventilate area after material pick up is complete.
Wear proper protective equipment.

Environmental precautions

Avoid release to the rivers, lakes, ocean, groundwater.

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 & 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.
- Avoid breathing dust, vapor, mist, or gas.

Safety Measures/Incompatibility

- Wear protective gloves, protective clothing or face protection.
- Wear eye protection/face protection.
- Use personal protective equipment as required.
- When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities

Recommendation for storage

- Keep cool . Protect from sunlight.
- Store in well-ventilated place. Keep container tightly closed.

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

- Wear positive pressure self-contained breathing apparatus (SCBA).

Hand protection

- Wear protective gloves.

Eye protection

- Wear eye/face protection.

Safety and Health measures

- Wash ... thoroughly after handling.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

- Appearance :LIQUID
- Color :LIGHT YELLOW
- odour data N.A.
- pH :10-11 (100g/L , 20°C)

Phase change temperature

Initial Boiling Point/Boiling point :245°C

Melting point/Freezing point :25°C

Decomposition temperature data N.A.

Auto-ignition temperature data N.A.

Explosive properties data N.A.

Vapor pressure :0.0203mmHg(25°C)

Relative Vapor Density (Air=1) :2.9

Relative density of the Vapor/air-mixture at 20°C (Air = 1) :1.00

Solubility

Solubility in water :miscible

Solubility in solvent :Very sol in alcohol, ether, benzene, chloroform, carbon disulfide.

n-Octanol /water partition coefficient : log Pow-0.85

10. Stability and Reactivity

Chemical stability

Stable under normal storage/handling conditions.

Conditions to avoid

Open flames. Heat.

Hazardous decomposition products

Carbon oxides, Nitrogen oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

rat LD50=6500 mg/kg (HSDB)

Irritant properties

Serious eye damage /irritation

Eye damage/irritation component(s) data

[GHS Cat. Japan, base data]

cat 2; IUCLID,2000

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

No Teratogenic effects data available

No Carcinogenic effects data available

No reproductive toxicity data available

No STOT-single/repeated exposure data available

No Aspiration hazard data available

12. Ecological Information

Toxicity

No Aquatic toxicity data available

No Persistence and degradability data available

No Bioaccumulative potential data available

13. Disposal considerations

Waste treatment methods

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

14. Transport Information

UN No, UN CLASS

Not applicable to UN NO.

15. Regulatory Information

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

US major regulations

TSCA

2-Pyrrolidone

Other regulatory information

We are not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

2-Pyrrolidone, JUNSEI CHEMICAL CO., LTD., 60295jis_E-1, 19/09/2014

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

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

16. Other information

GHS classification and labelling

Eye Irrit. 2 : H319 Causes serious eye irritation

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (4th ed., 2011), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 18th edit., 2013 UN

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

2012 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2014 TLVs and BEIs. (ACGIH)

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

Supplier's data/information

Chemical Risk Information Platform (CHRIP)(NITE) <http://www.safe.nite.go.jp/japan/db.html>

GHS Classification Guidance for Enterprises 2013 Revised Edition (August, 2013, METI)

Other information

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 is advised to make their own tests to determine 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