

Safety Data Sheet

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

Product identifier:

Product name: Melamine

Reference number(SDS):75160jis_E-3

Product type:

Reagent

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the product: Research and Development

Uses advised against: Do not use for other purposes.

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

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

Division: Quality Assurance Department

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Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Carcinogenicity: Category 2

Specific target organ toxicity – repeated exposure: Category 1 (urinary organs)

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

Label elements



Signal word: Danger

HAZARD STATEMENT

H351–Suspected of causing cancer

H372–Causes damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENT

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapors/spray.

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 water mist, foam, dry powder, CO2 to extinguish.

Get medical advice/attention if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

Storage

Store locked up.

Disposal

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

Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Common name, synonyms: 2,4,6-Triamino-1,3,5-triazine

Ingredient name: Melamine

Content (%): 99.5 <

Chemical formula: C₃H₆N₆

ENCS: 5-1024

CAS No.: 108-78-1

MW: 126.12

EC No.: 203-615-4

Note : The figures shown above are not the specifications of the product.

Components contributing to the hazard

Equivalent level of concern having probable serious effects to human health (Article 57(f) – human health) in REACH SVHC candidate list

Melamine

Equivalent level of concern having probable serious effects to the environment (Article 57(f) – environment) in REACH SVHC candidate list

Melamine

Section 4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical advice/attention if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

IF INHALED: 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.

IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Specific information on symptom and effect are unknown.

Indication of any immediate medical attention and special treatment needed

Information on indication of any immediate medical attention and special treatment needed is not available.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

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.

Cool container with water spray.

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 a full facepiece operated in the positive pressure mode.

Section 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

Avoid release to headsprings, rivers, lakes, ocean and groundwater.

Methods and materials for containment and cleaning up

Sweep spilled substance into sealable containers.

If appropriate, moisten first to prevent dusting.

Preventive measures for secondary accident

Collect spillage.

Section 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Precautions)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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Wear protective gloves/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Any incompatibilities

Strong acids, Strong oxidizing agents should not be mixed with the chemicals.

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

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

Storage

Conditions for safe storage

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

Keep cool. Protect from sunlight.

Store in accordance with local/national regulation.

Container and packaging materials for safe handling data is not available.

Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See

Section 8 for exposure controls and personal protection recommendations.

Section 8. Exposure controls/personal protection

Control parameters

Occupational Exposure Limit

JSOH

Not established

ACGIH

Not established

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

Select and wear respiratory protection in accordance with approved standards (e.g. JIS T8150).

Recommended respiratory protection: Dust mask

Hand protection

Wear protective gloves. Recommended material(s): neoprene, nitrile, viton

Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

Wear safety glasses with side-shields.

Wear eye/face protection in accordance with approved standards (e.g. JIS T8147).

Skin and body protection

Wear impervious clothing and boots in case of repeated or prolonged treatment.

Personal protective equipment for the body and skin should be selected based on the task being performed and the risks involved.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Crystals or crystalline powder

Color: Colorless ~ white

Odor: Odorless

Odor threshold data is not available.

Melting point/Freezing point: 354°C

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability data is not available.

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

Flash point data is not available.

Auto-ignition temperature: > 500°C

Decomposition temperature: > 280°C

Self-Accelerating Decomposition Temperature/SADT data is not available.

pH: 7.5 ~ 9.5 (5w/v% slurry, 25°C)

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: 3.48g/liter(20°C)

Solubility in solvent: Very slightly sol in ethanol; insoluble in ether.

Partition coefficient n-octanol/water: log Pow=1.14

Vapor pressure: 6.7 Pa (20°C)

Vapor density data is not available.

Density and/or relative density: 1.573(14°C)

Relative vapor density (Air=1): 4.34

Relative density of the Vapor/air - mixture at 20°C (Air = 1) data is not available.

Particle characteristics data is not available.

Other information

Critical temperature data is not available.

Evaporation rate data is not available.

VOC data is not available.

Section 10. Stability and Reactivity

Reactivity

Reactivity data is not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air.

Decomposes on heating and on burning. This produces toxic and irritating fumes.

Conditions to avoid

Contact with incompatible materials.

Open flames. Heating.

Incompatible materials

Strong acids. Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides. Nitrogen oxides. Hydrogen cyanide. Ammonia.

Section 11. Toxicological Information**Information on toxicological effects****Acute toxicity****Acute toxicity (Oral)****[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]**[NITE-CHRIP]**

rat LD50: 3161 mg/kg (source: NITE)

Acute toxicity (Dermal)**[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Acute toxicity (Inhalation)**[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]**[NITE-CHRIP]**

aerosol: rat LC50: > 5.19 mg/L (4-hour) (source: NITE)

Irritant properties**Skin corrosion/irritation****[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Serious eye damage/irritation**[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Sensitization**Respiratory sensitization****[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Skin sensitization**[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Germ cell mutagenicity**[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Carcinogenicity**[Product]**

Category 2, Suspected of causing cancer

[Data for components of the product]**[NITE-CHIRP]**

Category 2 (source: NITE)

[IARC]

Group 2B : Possibly carcinogenic to humans

[JSHO]

Group 2B: The agents which are probably or possibly carcinogenic to humans

[EU]

Category 2; Substances suspected human carcinogens

Reproductive toxicity**[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Specific target organ toxicity (STOT)**STOT-single exposure****[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

STOT-repeated exposure**[Product]**

Category 1, Causes damage to organs through prolonged or repeated exposure

[Data for components of the product]**[NITE-CHIRP]**

Category 1 (urinary organs) (source: NITE)

Aspiration hazard**[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Section 12. Ecological Information**Ecotoxicity****Aquatic toxicity****[Product]**

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

Hazardous to the aquatic environment, short-term (acute)

[NITE-CHIRP]

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Algae (*Raphidocelis subcapitata*) 72-hour EbC50: 196 mg/L (source: NITE)

Crustacea (*Daphnia magna*) 48-hour EC50: 200 mg/L (source: NITE)

Hazardous to the aquatic environment, long-term (chronic)

[NITE-CHRIIP]

Algae (*Raphidocelis subcapitata*) 72-hour NOEC: 31 mg/L (source: NITE)

Crustacea (*Daphnia magna*) 21-day NOEC: ≥ 11 mg/L (source: NITE)

Fish (*Pimephales promelas*) 36-day NOEC: ≥ 5.1 mg/L (source: NITE)

Water solubility

[Data for components of the product]

3.48 g/L (source: REACH Registration Information)

Persistence and degradability

[Data for components of the product]

Not rapidly degradable (BIOWIN) (source: NITE)

Bioaccumulative potential

[Data for components of the product]

log Pow: -1.14 (source: ICSC, 2006)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Section 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.

Section 14. Transport Information

UN No., UN CLASS

UN Number or ID Number : Not regulated

UN Proper Shipping Name : Not regulated

Class or division (Transport hazard class) : Not regulated

Packing group : Not regulated

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : Not regulated

UN Proper Shipping Name : Not regulated

Class or division (Transport hazard class) : Not regulated

Packing group : Not regulated

IATA (Dangerous Goods Regulations)

UN Number or ID Number : Not regulated

UN Proper Shipping Name : Not regulated

Class or division (Transport hazard class) : Not regulated

Packing group : Not regulated

Environmental hazards

Marine pollutants (yes/no) : no

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable to Transport in bulk according to Annex II of MARPOL and the IBC Code

MARPOL Annex V – HME (Harmful to the Marine Environment)

Specific target organ toxicity – repeated exposure: cat.1

Melamine

Section 15. Regulatory Information

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

List of substances subject to authorisation (REACH, Annex XIV)/SVHC – candidate list

Equivalent level of concern having probable serious effects to human health (Article 57(f) – human health)

Melamine

Equivalent level of concern having probable serious effects to the environment (Article 57(f) – environment)

Melamine

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

108-78-1

All components are listed or exempted.

Other regulatory information

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

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.

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

Chemical safety assessment

Advice on safe handling for this product can be found in sections 7 and 8 of this SDS.

Section 16. Other information

GHS classification and labelling

H351–Carcinogenicity, Category 2: H351 Suspected of causing cancer

H372–STOT – Repeated exposure, Category 1: H372 Causes damage to organs through prolonged or repeated exposure

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 23rd edit., 2023 UN

IMDG Code, 2024 Edition (Incorporating Amendment 42–24)

IATA Dangerous Goods Regulations (66th Edition) 2025

2024 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2025 TLVs and BEIs. (ACGIH)

JIS Z 7252 : 2019

JIS Z 7253 : 2019

Recommendation of occupational exposure limits (2023–2024) (JSOH)

Melamine, JUNSEI CHEMICAL CO., LTD., 75160jis_E-3, 31/Jul/2025

Notification No. 0111-1 (January 11, 2022), Chemical Hazards Control Division, Industrial Safety and Health Department, Labour Standards Bureau, MHLW in Japan

Supplier's data/information

Chemicals safety data management system "GHS Assistant" Version 4.34

(<https://www.asahi-ghs.com/>)

NITE Chemical Risk Information Platform "NITE-CHRIP"

(https://www.chem-info.nite.go.jp/chem/chrip/chrip_search/systemTop)

GHS Classification Guidance for Enterprises 2019 Revised Edition (Ver. 2.1) (May. 2024, METI)

Abbreviations and acronyms

SDS (Safety Data Sheet)

LD50 (Lethal Dose, 50%)

LC50 (Lethal Concentration, 50%)

IARC (International Agency for Research on Cancer)

ACGIH (American Conference of Governmental Industrial Hygienists)

EPA (US Environmental Protection Agency)

NTP (US National Toxicology Program)

METI (Ministry of Economy, Trade and Industry in Japan)

MHLW (Ministry of Health, Labour and Welfare in Japan)

MOE (Ministry of the Environment in Japan)

JSOH (Japan Society for Occupational Health)

ISHA (Industrial Safety and Health Act in Japan)

CSCL (Chemical Substances Control Law in Japan)

EU (European Union)

EC50 (Effective Concentration, 50%)

NOEC (No Observed Effect Concentration)

BOD (Biochemical Oxygen Demand)

COD (Chemical Oxygen Demand)

BCF (Bioconcentration Factor)

anh (anhydride)

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 Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIP), up to FY2023).