

Label Elements

Hazard Pictograms



Signal Word:

Danger

Hazard Statements

H302 - Harmful if swallowed
 H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H332 - Harmful if inhaled

Precautionary Statements

Prevention

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P271 - Use only outdoors or in a well-ventilated area
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P273 - Avoid release to the environment

Response

P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P363 - Wash contaminated clothing before reuse
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P310 - Immediately call a POISON CENTER or doctor/physician
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**Storage
 Disposal**

P405 - Store locked up
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Contains

Substances

3, 3'-Methylene bis (5-methyl oxazolidine)

CAS Number

66204-44-2

Special Labelling of certain mixtures Use biocides safely. Always read the label and product information before use.

Other hazards which do not result in classification

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
 This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

3. Composition and information on ingredients of the hazardous chemical

| Substances | CAS Number | PERCENT (w/w) | GHS Classification - Malaysia |
|--|------------|---------------|---|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | > 60% | Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Corr. 1C (H314) Eye Corr. 1 (H318) Skin Sens. 1 (H317) STOT RE 2 (H373) Aquatic Chronic 3 (H412) |

4. First aid measures

Description of first aid measures

| | |
|-------------------|--|
| Inhalation | If inhaled, move victim to fresh air and seek medical attention. |
| Eyes | Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention. |
| Skin | In case of contact, immediately flush skin with plenty of soap and water for at least 30 minutes and remove contaminated clothing, shoes and leather goods immediately. Get medical attention immediately. |
| Ingestion | Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention. |

Most important symptoms and effects, both acute and delayed

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. May cause allergic skin reaction. Harmful if swallowed. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Physicochemical hazards arising from the chemical

Special exposure hazards in a fire

Decomposition in fire may produce harmful gases.

Special protective equipment and precautions for fire fighters

Special protective equipment for firefighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation. Evacuate all persons from the area.

See Section 8 for additional information

Environmental precautions

Prevent from entering sewers, waterways, or low areas. Consult local authorities.

Methods and material for containment and cleaning up

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. Handling and storage

Precautions for safe handling

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Avoid breathing mist. Ensure adequate ventilation. Do NOT consume food, drink, or tobacco in contaminated areas. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Store in original container. Store away from oxidizers. Store away from acids. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 12 months. Keep Away From Food

8. Exposure controls and personal protection

Control parameters

Exposure Limits

| Substances | CAS Number | Malaysia OEL | ACGIH TLV-TWA |
|--|------------|----------------|----------------|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Not applicable | Not applicable |

Appropriate engineering controls

Engineering Controls Use in a well ventilated area.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.
Organic vapor respirator.

Hand Protection Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Nitrile gloves. Butyl rubber gloves. (>= 0.7 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.

Skin Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or overall, as appropriate, to prevent skin contact.

Eye Protection Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls Do not flush into surface water or sanitary sewer system Avoid subsoil penetration

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State: Liquid **Color** Colorless to slight yellow
Odor: Sweet amine **Odor Threshold:** No information available

| <u>Property</u> | <u>Values</u> |
|-------------------------------|----------------------------|
| Remarks/ - Method | |
| pH: | 10 (0.15%) |
| Freezing Point / Range | No data available |
| Melting Point / Range | < -35 °C / -31 °F |
| Pour Point / Range | No data available |
| Boiling Point / Range | 204 °C / 399.2 °F |
| Flash Point | > 100 °C / > 212 °F (PMCC) |
| Evaporation rate | No data available |
| Vapor Pressure | 0.014 hPa |
| Vapor Density | No data available |
| Specific Gravity | 1.049 - 1.069 |
| Water Solubility | Soluble in water |

| | |
|---|--------------------------|
| Solubility in other solvents | benzene heptane |
| Partition coefficient: n-octanol/water | 1.89 |
| Autoignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Viscosity | &21 |
| Explosive Properties | No information available |
| Oxidizing Properties | No information available |
| Other information | |
| Molecular Weight | 186.25 |
| VOC Content (%) | No data available |

10. Stability and reactivity

Reactivity

Not expected to be reactive.

Chemical stability

Stable

Possibility of hazardous reactions

Will Not Occur

Conditions to avoid

None anticipated

Incompatible materials

Strong oxidizers. Strong acids. Reducing agents.

Hazardous decomposition products

Formaldehyde. Oxides of nitrogen. Oxides of sulfur.

11. Toxicological information

Information on possible routes of exposure

Principle Route of Exposure Eye or skin contact, inhalation.

Symptoms related to exposure

Most Important Symptoms/Effects

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. May cause allergic skin reaction. Harmful if swallowed. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity

Toxicology data for the components

| Substances | CAS Number | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|------------|-----------------|-------------|-----------------------------|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | 900 mg/kg (Rat) | - | 2 mg/L (Rat, 4 hr, aerosol) |

Immediate, delayed and chronic health effects from exposure

Inhalation

Harmful if inhaled. Causes severe respiratory irritation.

Eye Contact

Causes eye burns

Skin Contact

Causes severe burns. May cause an allergic skin reaction.

Ingestion

Harmful if swallowed. Causes burns of the mouth, throat and stomach.

Chronic Effects/Carcinogenicity

Prolonged or repeated exposure may cause damage to the upper respiratory tract. Formaldehyde, a suspected carcinogen, is released when heated.

Exposure Levels

No data available

Interactive effects

Skin disorders. Eye ailments.

Data limitations

No data available

| Substances | CAS Number | Skin corrosion/irritation |
|--|------------|--|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Causes severe irritation and or burns (Rabbit) |

| Substances | CAS Number | Serious eye damage/irritation |
|--|------------|--|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Causes severe irritation and or burns (Rabbit) |

| Substances | CAS Number | Skin Sensitization |
|--|------------|--|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | May cause sensitization by skin contact (guinea pig) |

| Substances | CAS Number | Respiratory Sensitization |
|--|------------|---------------------------|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | No information available |

| Substances | CAS Number | Mutagenic Effects |
|--|------------|--|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | In vivo tests did not show mutagenic effects. In vitro tests did not show mutagenic effects. |

| Substances | CAS Number | Carcinogenic Effects |
|--|------------|---|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Did not show carcinogenic effects in animal experiments |

| Substances | CAS Number | Reproductive toxicity |
|--|------------|---|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. |

| Substances | CAS Number | STOT - single exposure |
|--|------------|---|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | No significant toxicity observed in animal studies at concentration requiring classification. |

| Substances | CAS Number | STOT - repeated exposure |
|--|------------|---|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Causes damage to organs through prolonged or repeated exposure: Gastrointestinal tract (GI) Respiratory system |

| Substances | CAS Number | Aspiration hazard |
|--|------------|-------------------|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Not applicable |

12. Ecological information**Ecotoxicity****12.1. Toxicity****Ecotoxicity effects**

Toxic to aquatic life.

| Substances | CAS Number | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Toxicity to Invertebrates |
|--|------------|--|--|----------------------------------|---|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | EC50(72 h)=5.7 mg/L (Desmodesmus subspicatus) EC50()=3.35 mg/L (Skeletonema costatum) | LC50(96 h)=135.21 mg/L (Scophthalmus maximus) | EC50: 44 mg/L (activated sludge) | EC50(48 h)=37.9 mg/L (Daphnia magna) EC50(48 h)=4.1 mg/L (Acartia tonsa) NOEC(21 d)=1.3 mg/L (Daphnia magna) |

Persistence and degradability

| Substances | CAS Number | Persistence and Degradability |
|--|------------|-------------------------------------|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Readily biodegradable (69.4% @ 28d) |

Bioaccumulative potential

| Substances | CAS Number | Bioaccumulation |
|--|------------|-----------------|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | Log Pow=-0.11 |

Mobility in soil

| Substances | CAS Number | Mobility |
|--|------------|--------------------------|
| 3, 3'-Methylene bis (5-methyl oxazolidine) | 66204-44-2 | No information available |

Other adverse effects

Does not contain any organically bound halogen. May not increase the AOX value when discharged from treatment plants or into natural waters.

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

13. Disposal considerations**Disposal methods****Disposal methods**

Disposal should be made in accordance with federal, state, and local regulations. Incineration recommended in approved incinerator according to federal, state, and local regulations. Substance should NOT be deposited into a sewage facility.

Contaminated Packaging

Follow all applicable national or local regulations.

14. Transportation information**Transportation Information**

| | |
|------------------------------------|--|
| UN Number | UN2735 |
| UN proper shipping name: | Amines, Liquid, Corrosive, N.O.S. (Contains N, N' -Methylenebis[5-methyl oxazolidine]) |
| Transport Hazard Class(es): | 8 |
| Packing Group: | III |
| Environmental Hazards: | Not applicable |

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

Exempt

Special precautions for user

None

HazChem Code

2X

15. Regulatory information**International Agreements**

| | |
|--|-----------------|
| Montreal Protocol - Ozone Depleting Substances: | Does not apply. |
| Stockholm Convention - Persistent Organic Pollutants: | Does not apply |
| Rotterdam Convention - Prior Informed Consent: | Does not apply. |
| Basel Convention - Hazardous Waste: | Does not apply. |

Safety, health, and environmental regulations specific for the hazardous chemical

| | |
|---|----------------|
| Malaysia Occupation Safety and Health - Prohibition of Use Substances: | Does not apply |
| Malaysia Substances Requiring Medical Surveillance: | Does not apply |
| Malaysia Environmentally Hazardous Substances (EHS): | Does not apply |

16. Other information

Revision Date: 15-Nov-2018

Revision Note

SDS sections updated:

2
3
4
11
14
16

Key literature references and sources for data

www.ChemADVISOR.com/

NZ CCID

Key or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight

CAS – Chemical Abstracts Service

CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures

EC – European Commission

EC10 – Effective Concentration 10%

EC50 – Effective Concentration 50%

EEC – European Economic Community

ErC50 – Effective Concentration growth rate 50%

IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

LC50 – Lethal Concentration 50%

LD50 – Lethal Dose 50%

LL0 – Lethal Loading 0%

LL50 – Lethal Loading 50%

MARPOL – International Convention for the Prevention of Pollution from Ships

mg/kg – milligram/kilogram

mg/L – milligram/liter

NIOSH – National Institute for Occupational Safety and Health

NOEC – No Observed Effect Concentration

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PBT – Persistent Bioaccumulative and Toxic

PC – Chemical Product category

PEL – Permissible Exposure Limit

ppm – parts per million

PROC – Process category

REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

STEL – Short Term Exposure Limit

SU – Sector of Use category

TWA – Time-Weighted Average

UN – United Nations

VOC – Volatile Organic Carbon

vPvB – very Persistent and very Bioaccumulative

VLA-ED - time-weighted average values for a whole work shift [Spain valores límite ambientales para la exposición diaria]

NDS - najwyższe dopuszczalne stężenie na stanowisku pracy

SZW - Netherlands Ministry of Social Affairs and Employment

ADR - The European Agreement concerning the International Carriage of Dangerous Goods by Road

AS/NZS 1715 - New Zealand Standard on Selection, use and maintenance of respiratory protective equipment

C - Celsius

EN 149 - European standard on filtering halfmasks to protect against particles

EN 374 - European standard on Protective gloves against chemicals and micro-organisms

FFP - Filtering Facepieces

h - hour

IATA/ICAO - International Air Transport Association / International Civil Aviation Organization

IMDG/IMO - International Maritime Dangerous Goods / International Maritime Organization

mg/m³ - milligram/cubic meter

mm - millimeter

mmHg - millimeter mercury

NDS - OEL-TWA [Poland najwyższe dopuszczalne stężenie na stanowisku pracy]

R/H-phrases - Risk/Hazard-phrases

RID - The European Agreement concerning the International Carriage of Dangerous Goods by Rail

UK - United Kingdom

w/w - weight/weight

VLA-EC - short-time excursion limits [Spain valores límite ambientales para la exposición de corta duración]

MAK - Maximum Workplace Concentration

d - day

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End of Safety Data Sheet