

A-NCFI-120 (Stabilizer)

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard Issue date: 11/9/2022 Revision date: 11/9/2022 Version: 1.0

SECTION 1: Identification

1.1. Identification

Trade name : A-24-120 (Stabilizer)

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Production of polyurethanes
Restrictions on use : For industrial/occupational use only

1.3. Supplier

Supplier

NCFI Polyurethanes 1515 Carter St Mount Airy, NC 27030 USA

T (800) 346-8229 - F (336) 789-9586

www.NCFI.com

1.4. Emergency telephone number

Emergency number : (Chemical Spills, Leaks, Fire, Exposure or Accident only)

CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

| Acute toxicity (inhalation:dust,mist) Category 4 | H332 | Harmful if inhaled |
|---------------------------------------------------------------|------|--------------------------------------------------------------|
| Skin corrosion/irritation Category 2 | H315 | Causes skin irritation |
| Eye irritation Category 2A | H319 | Causes serious eye irritation |
| Respiratory sensitization, Category 1 | H334 | May cause an allergy or asthma symptoms or breathing |
| | | difficulties if inhaled |
| Skin sensitization, Category 1 | H317 | May cause an allergic skin reaction |
| Specific target organ toxicity – Single exposure, Category 3, | H335 | May cause respiratory irritation |
| Respiratory tract irritation | | |
| Specific target organ toxicity (repeated exposure) Category 2 | H373 | May cause damage to organs (lung/respiratory system) through |
| | | prolonged or repeated exposure (Inhalation) |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)





Signal word (GHS US) : Dange

Hazard statements (GHS US) : H315 - Causes skin irritation

H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled

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H335 - May cause respiratory irritation

H373 - May cause damage to organs (lung/respiratory system) through prolonged or repeated

exposure (Inhalation)

Precautionary statements (GHS US)

: P260 - Do not breathe mist.

P264 - Wash hands, forearms and face thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear eye protection, protective clothing, protective gloves.
P284 - [In case of inadequate ventilation] wear respiratory protection.

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a POISON CENTER, a doctor if you feel unwell. P302+P352 - If on skin: Wash with plenty of soap and water.

 ${\sf P333+P313-If}\ skin\ irritation\ or\ rash\ occurs:\ Get\ medical\ advice/attention.$

P362+P364 - Take off contaminated clothing and wash it before reuse.

 ${\tt P305+P351+P338-If\ in\ eyes:\ Rinse\ cautiously\ with\ water\ for\ several\ minutes.\ Remove\ contact}$

lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P314 - Get medical advice/attention if you feel unwell.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : None known.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % |
|------------------------------------------------------------------------------------------|----------------------|---------|
| 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate | CAS-No.: 101-68-8 | 15 - 40 |
| Isocyanic acid polymethylenepolyphenylene ester ; Polymethylene polyphenylene isocyanate | CAS-No.: 9016-87-9 | 10 – 30 |
| o-(p-lsocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate | CAS-No.: 5873-54-1 | 10 – 30 |
| MDI Prepolymer | CAS-No.: Proprietary | 10 – 30 |
| 1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]- | CAS-No.: 17589-24-1 | 5 – 10 |
| propylene carbonate | CAS-No.: 108-32-7 | 5 – 10 |
| methylenediphenyl diisocyanate | CAS-No.: 26447-40-5 | 1 – 5 |
| 2,2'-Methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate | CAS-No.: 2536-05-2 | < 1 |

Full text of hazard classes and H-statements : see section 16

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SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : First aider: Pay attention to self-protection!.

First-aid measures after inhalation : Remove the victim into fresh air. If experiencing respiratory symptoms: Call a poison center or a

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

First-aid measures after skin contact : Wash skin with mild soap and water. If skin irritation or rash occurs: Get medical

advice/attention. Take off contaminated clothing and wash it before reuse.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. If eye irritation persists: Get

medical advice/attention.

First-aid measures after ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Call a poison center or a

doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an

allergic skin reaction. Causes eye irritation. Causes skin irritation. Symptoms may be delayed.

: Harmful if inhaled. Inhalation of mists or vapors at elevated temperatures may cause respiratory

irritation. Cough. Shortness of breath. Pulmonary edema.

: Causes skin irritation. May cause an allergic skin reaction.

Eyes : Causes eye irritation.

Ingestion : May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic symptoms : Possible inflammation of the respiratory tract. Prolonged or repeated exposure by inhalation may

cause lung damage.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

Inhalation

Skin

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Dry chemical, CO2, or water spray or regular foam.

Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.

Hazardous decomposition products in case of fire : Fire will produce dense black smoke. Toxic and irritating gases are released. Carbon oxides

(CO, CO2). Hydrogen cyanide. Nitrogen oxides. Isocyanates.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers

exposed to heat with a water spray.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Prevent unauthorized access. Avoid contact with eyes, skin and clothing.

Ventilate spillage area. Caution: this product can cause the floor to be slippery.

6.1.1. For non-emergency personnel

No additional information available

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6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Prevent soil and water pollution.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or

Methods for cleaning up strea

Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Cover spill with absorbent and neutralize with decontaminant. Transfer waste into open-top drums and keep drum lid loose for about 48hrs to allow escape of carbon dioxide. Clean spill area additionally with decontaminant. Allow solution to stand for at least 10 minutes. LARGE SPILLS: Dike spillage. A blanket of protein foam may be placed over the spill. Pump or vacuum material into containers.

Other information : Neutralizing agent (90% water, 8% ammonia, 2% liquid detergent).

6.4. Reference to other sections

For disposal of contaminated materials refer to section 13: "Disposal considerations". Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep container tightly closed. Do not eat, drink or smoke when using this product. Avoid contact

with eyes, skin and clothing. Do not breathe vapor/aerosol. Protect from moisture.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area. Keep container tightly closed. MDI reacts with water

producing CO2 gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Closed containers may develop pressure and rupture on prolonged exposure to heat

or if contaminated with water.

Incompatible materials : Amines. Copper alloys. Strong acids. Strong bases. alcohols. Keep away from any possible

contact with water, because of violent reaction and possible flash fire.

Storage temperature : 15 - 27 °C (60-80°F)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

A-24-120 (Stabilizer)

No additional information available

Isocyanic acid polymethylenepolyphenylene ester; Polymethylene polyphenylene isocyanate (9016-87-9)

No additional information available

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

USA - ACGIH - Occupational Exposure Limits

Local name Methylene bisphenyl isocyanate (MDI)

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| 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8) | |
|-----------------------------------------------------------------------------------|--------------------------------------|
| ACGIH OEL TWA [ppm] | 0.005 ppm |
| Remark (ACGIH) | TLV® Basis: Resp sens |
| Regulatory reference | ACGIH 2022 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Methylene bisphenyl isocyanate (MDI) |
| OSHA PEL (Ceiling) | 0.2 mg/m³ |
| OSHA PEL C [ppm] | 0.02 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |

o-(p-lsocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate (5873-54-1)

No additional information available

2,2'-Methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate (2536-05-2)

No additional information available

1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]- (17589-24-1)

No additional information available

propylene carbonate (108-32-7)

No additional information available

methylenediphenyl diisocyanate (26447-40-5)

No additional information available

MDI Prepolymer (Proprietary)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls

: Ensure good ventilation of the work station. Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Provide readily accessible eye wash stations and safety showers.

Hand protection:

Chemically resistant protective gloves. Consult supplier for specific recommendations.

Eye protection:

Chemical goggles. If there is a risk of liquid being splashed: Goggles + face shield

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Viscous.
Color : Brown
Odor : Slight musty
Odor threshold : No data available
pH : No data available

pH solution : ≈ 7

Melting point : No data available Freezing point : No data available Boiling point : No data available Flash point : > 93.3 °C (200F) Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) Not flammable Vapor pressure No data available Relative vapor density at 20°C No data available

Relative density : 1.1

Solubility : No data available
Partition coefficient n-octanol/water (Log Pow) : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosion limits : No data available

Explosive properties : None.
Oxidizing properties : None.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

MDI reacts with water producing CO2 gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Closed containers may develop pressure and rupture on prolonged exposure to heat or if contaminated with water.

. Polymerization can occur. Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength. An exothermic reaction may occur.

10.4. Conditions to avoid

Moisture.

10.5. Incompatible materials

Incompatible with water, humid air. alcohols. Strong bases. Amines. Acids. Substances/products that react with isocyanates.

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10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Nitrogen oxides. Hydrogen cyanide. Isocyanates.

SECTION 11: Toxicological information

| 11.1. Information on toxicological eff | tects |
|----------------------------------------|-------|
|----------------------------------------|-------|

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Harmful if inhaled

| Acute toxicity (definal) | Not classified | | |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Acute toxicity (inhalation) : | Harmful if inhaled. | | |
| A-24-120 (Stabilizer) | | | |
| ATE US (dust, mist) | 1.974 mg/l/4h | | |
| Isocyanic acid polymethylenepolyphenylene | Isocyanic acid polymethylenepolyphenylene ester ; Polymethylene polyphenylene isocyanate (9016-87-9) | | |
| LD50 oral rat | 49000 mg/kg Source: Corporate Solution From Thomson Micromedex | | |
| LD50 dermal rabbit | > 9500 mg/kg Source: Corporate Solution From Thomson Micromedex | | |
| ATE US (oral) | 49000 mg/kg body weight | | |
| ATE US (dust, mist) | 1.5 mg/l/4h | | |
| 4,4'-methylenediphenyl diisocyanate, dipheny | rlmethane-4,4'-diisocyanate (101-68-8) | | |
| LD50 oral rat | > 2000 mg/kg body weight Animal: rat, Guideline: other: | | |
| LD50 dermal rabbit | > 9400 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) | | |
| ATE US (dust, mist) | 1.5 mg/l/4h | | |
| o-(p-lsocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4′-diisocyanate (5873-54-1) | | | |
| LD50 oral rat | > 2000 mg/kg body weight Animal: rat, Guideline: other: | | |
| LD50 dermal rabbit | > 9400 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) | | |
| ATE US (dust, mist) | 1.5 mg/l/4h | | |
| 2,2'-Methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate (2536-05-2) | | | |
| LD50 oral rat | > 5000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Remarks on results: other: | | |
| LD50 dermal rabbit | > 9400 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) | | |
| ATE US (dust, mist) | 1.5 mg/l/4h | | |
| 1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]- (17589-24-1) | | | |
| ATE US (dust, mist) | 1.5 mg/l/4h | | |
| propylene carbonate (108-32-7) | | | |
| LD50 oral rat | > 5000 mg/kg body weight OECD 401 | | |
| LD50 dermal rabbit | > 2000 mg/kg Source: ECHA | | |
| methylenediphenyl diisocyanate (26447-40-5) | | | |
| LD50 oral rat | > 2000 mg/kg Source: NITE | | |
| LD50 dermal rabbit | > 10000 mg/kg Source: OECD SIDS | | |
| | | | |

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| methylenediphenyl diisocyanate (26447-40-5) | |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| ATE US (dust, mist) | 1.5 mg/l/4h |
| MDI Prepolymer (Proprietary) | |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| Skin corrosion/irritation : | Causes skin irritation. |
| Serious eye damage/irritation : | Causes serious eye irritation. |
| | May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an |
| | allergic skin reaction. |
| Germ cell mutagenicity : | Not classified |
| Carcinogenicity : | This product does not contain any component that is considered a carcinogen by IARC, ACGIH, OSHA or NTP. |
| Isocyanic acid polymethylenepolyphenylene | ester ; Polymethylene polyphenylene isocyanate (9016-87-9) |
| IARC group | 3 - Not classifiable |
| 4,4'-methylenediphenyl diisocyanate, dipheny | /Imethane-4,4'-diisocyanate (101-68-8) |
| IARC group | 3 - Not classifiable |
| Reproductive toxicity : | Not classified |
| STOT-single exposure : | May cause respiratory irritation. |
| Isocyanic acid polymethylenepolyphenylene | ester ; Polymethylene polyphenylene isocyanate (9016-87-9) |
| STOT-single exposure | May cause respiratory irritation. |
| 4,4'-methylenediphenyl diisocyanate, dipheny | /Imethane-4,4'-diisocyanate (101-68-8) |
| STOT-single exposure | May cause respiratory irritation. |
| o-(p-lsocyanatobenzyl)phenyl isocyanate; dip | henylmethane-2,4′-diisocyanate (5873-54-1) |
| STOT-single exposure | May cause respiratory irritation. |
| 2,2'-Methylenediphenyl diisocyanate; dipheny | ylmethane-2,2'-diisocyanate (2536-05-2) |
| STOT-single exposure | May cause respiratory irritation. |
| 1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocyal | natophenyl)methyl]phenyl]- (17589-24-1) |
| STOT-single exposure | May cause respiratory irritation. |
| methylenediphenyl diisocyanate (26447-40-5) | |
| STOT-single exposure | May cause respiratory irritation. |
| MDI Prepolymer (Proprietary) | |
| STOT-single exposure | May cause respiratory irritation. |
| STOT-repeated exposure : | May cause damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation). |
| Isocyanic acid polymethylenepolyphenylene | ester ; Polymethylene polyphenylene isocyanate (9016-87-9) |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| 4,4'-methylenediphenyl diisocyanate, dipheny | ylmethane-4,4'-diisocyanate (101-68-8) |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| o-(p-lsocyanatobenzyl)phenyl isocyanate; dip | henylmethane-2,4′-diisocyanate (5873-5 <mark>4</mark> -1) |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| | |

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| 2,2'-Methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate (2536-05-2) | | |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. | |
| 1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocya | natophenyl)methyl]phenyl]- (17589-24-1) | |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. | |
| propylene carbonate (108-32-7) | | |
| NOAEL (oral,rat,90 days) | > 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity in Rodents) | |
| methylenediphenyl diisocyanate (26447-40-5) | | |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. | |
| MDI Prepolymer (Proprietary) | | |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. | |
| Aspiration hazard : | Not classified | |
| Viscosity, kinematic : | No data available | |
| Symptoms/effects : | May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Causes eye irritation. Causes skin irritation. Symptoms may be delayed. | |
| Inhalation : | Harmful if inhaled. Inhalation of mists or vapors at elevated temperatures may cause respiratory irritation. Cough. Shortness of breath. Pulmonary edema. | |
| Skin : | Causes skin irritation. May cause an allergic skin reaction. | |
| Eyes : | Causes eye irritation. | |
| Ingestion : | May cause gastrointestinal irritation, nausea, vomiting and diarrhea. | |
| Chronic symptoms : | Possible inflammation of the respiratory tract. Prolonged or repeated exposure by inhalation may cause lung damage. | |

SECTION 12: Ecological information

| 12.1. Toxicity | | |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Ecology - general : | The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. | |
| 4,4'-methylenediphenyl diisocyanate, dipheny | rlmethane-4,4'-diisocyanate (101-68-8) | |
| LC50 - Fish [1] | > 1000 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) | |
| NOEC (chronic) | ≥ 10 mg/l Test organisms (species): Daphnia magna Duration: '21 d' | |
| o-(p-lsocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4′-diisocyanate (5873-54-1) | | |
| LC50 - Fish [1] | > 1000 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) | |
| NOEC (chronic) | ≥ 10 mg/l Test organisms (species): Daphnia magna Duration: '21 d' | |
| 2,2'-Methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate (2536-05-2) | | |
| LC50 - Fish [1] | > 1000 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) | |
| NOEC (chronic) | ≥ 10 mg/l Test organisms (species): Daphnia magna Duration: '21 d' | |
| propylene carbonate (108-32-7) | | |
| LC50 - Fish [1] | > 1000 mg/l Cyprinus carpio | |
| EC50 - Crustacea [1] | > 1000 mg/l Daphnia magna | |
| EC50 72h - Algae [1] | > 929 mg/l Pseudokirchneriella subcapitata | |

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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

| Isocyanic acid polymethylenepolyphenylene ester ; Polymethylene polyphenylene isocyanate (9016-87-9) | | |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--|
| Partition coefficient n-octanol/water (Log Pow) | Pow) 10.46 Source: Quantitative Structure Activity Relation | |
| 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8) | | |
| Partition coefficient n-octanol/water (Log Pow) | 4.51 Source: ECHA | |
| o-(p-lsocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate (5873-54-1) | | |
| Partition coefficient n-octanol/water (Log Pow) | 4.51 Source: ECHA | |
| 2,2'-Methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate (2536-05-2) | | |
| Partition coefficient n-octanol/water (Log Pow) | 5.22 Source: Ecological Structure Activity RelationshipsECOSAR, ECHA | |
| propylene carbonate (108-32-7) | | |
| Partition coefficient n-octanol/water (Log Pow) | -0.41 Source: National Library of Medicine | |
| methylenediphenyl diisocyanate (26447-40-5) | | |
| Partition coefficient n-octanol/water (Log Pow) | 3.212 Source: Molbase | |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations. Do not discharge into

drains or the environment.

Product/Packaging disposal recommendations : Empty containers should be taken for recycling, recovery or waste in accordance with local

regulation.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

| DOT | IMDG | IATA |
|----------------------------------|----------------|----------------|
| 14.1. UN number | | |
| Not regulated for transport | | |
| 14.2. Proper Shipping Name | | |
| Not applicable | Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | | |
| Not applicable | Not applicable | Not applicable |

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| DOT | IMDG | IATA |
|----------------------------------------|----------------|----------------|
| 14.4. Packing group | | |
| Not applicable | Not applicable | Not applicable |
| 14.5. Environmental hazards | | |
| Not applicable | Not applicable | Not applicable |
| No supplementary information available | | |

14.6. Special precautions for user

DOT

No data available

IMDG

No data available

IATA

No data available

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

Not applicable

MDI Prepolymer

SECTION 15: Regulatory information

15.1. US Federal regulations

| A-24-120 (Stabilizer) | | |
|-------------------------------------|----------------------------------------------------|--|
| SARA Section 311/312 Hazard Classes | Refer to Section 2 for OSHA Hazard Classification. | |

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

methylenediphenyl diisocyanate

CAS-No. 26447-40-5

1 - 5%

10 - 30%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Isocyanic acid polymethylenepolyphenylene ester:

CAS-No. 9016-87-9

10 – 30%

CAS-No. Proprietary

| Polymethylene polyphenylene isocyanate | CAS-No. 9016-87-9 | 10 – 30% |
|------------------------------------------------------------------------|-------------------|----------|
| 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate | CAS-No. 101-68-8 | 15 - 40% |

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

Listed on EPA Hazardous Air Pollutant (HAPS)

| L | | | |
|---|-----------|---------|--|
| | CERCLA RQ | 5000 lb | |

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard

15.2. International regulations

CANADA

Isocyanic acid polymethylenepolyphenylene ester; Polymethylene polyphenylene isocyanate (9016-87-9)

Listed on the Canadian DSL (Domestic Substances List)

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

Listed on the Canadian DSL (Domestic Substances List)

o-(p-lsocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate (5873-54-1)

Listed on the Canadian DSL (Domestic Substances List)

2,2'-Methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate (2536-05-2)

Listed on the Canadian DSL (Domestic Substances List)

1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]- (17589-24-1)

Listed on the Canadian DSL (Domestic Substances List)

propylene carbonate (108-32-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Isocyanic acid polymethylenepolyphenylene ester; Polymethylene polyphenylene isocyanate (9016-87-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

| Component | State or local regulations |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Isocyanic acid polymethylenepolyphenylene ester ; Polymethylene polyphenylene isocyanate(9016-87-9) | U.S Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S New Jersey - Right to Know Hazardous Substance List |
| 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate(101-68-8) | U.S Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S New Jersey - Right to Know Hazardous Substance List |

SECTION 16: Other information

According to 29CFR 1910.1200 OSHA Hazard Communication Standard Revision date : 11/09/2022

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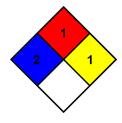
According to 29CFR 1910.1200 OSHA Hazard Communication Standard

| Full text of H-phrases | |
|------------------------|------------------------------------------------------------------------------|
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H334 | May cause an allergy or asthma symptoms or breathing difficulties if inhaled |
| H335 | May cause respiratory irritation |
| H373 | May cause damage to organs through prolonged or repeated exposure |

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



Safety Data Sheet (SDS), USA

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