SAFETY DATA SHEET

Version: v1 Revision Date: 2024-01-25 Print Date: 2024-02-02

SECTION 1:Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

| Product name | : 1,4-Phenylene diisocyanate |
|----------------|------------------------------|
| Product Number | : P103566 |
| Brand | : aladdin |
| CAS-No. | : 104-49-4 |

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

| Identified uses : Laboratory chemicals, Manufacture of substances |
|---|
|---|

1.3 Company

| Company | : ALADDIN SCIENTIFIC CORPORATION |
|----------------------|----------------------------------|
| Address | : 14078 Meridian Parkway, |
| Riverside, CA. 92518 | |
| Telephone | : +1 (833) 552-7181 |
| Fax | : no data available |
| | |

1.4 Emergency telephone number

| CHEMTREC®, Inside the USA | : 1-800-424-9300 |
|----------------------------|------------------|
| CHEMTREC®, Outside the USA | : |

SECTION 2: Hazards identification

Diotogram

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.2 GHS Label elements, including precautionary statements

| Pictogram |
|---------------------|
| Signal word |
| Hazard statement(s) |
| H302 |
| |



| H302 | Harmful if swallowed |
|----------------------------|---|
| Precautionary statement(s) | |
| P260 | Do not breathe dust/fume/gas/mist/vapors/spray. |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P264 | Wash hands [and] thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |



| Contaminated work clothing should not be allowed out of the workplace. |
|---|
| Avoid release to the environment. |
| Wear protective gloves/protective clothing/eye protection/face protection. |
| [In case of inadequate ventilation] Wear respiratory protection. |
| Specific treatment is urgent (see on this label). |
| Rinse mouth. |
| If experiencing respiratory symptoms: |
| Collect spillage. |
| IF SWALLOWED: call a POISON CENTER/doctor/ IF you feel unwell. |
| IF ON SKIN: wash with plenty of water. |
| IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| IF IN EYES: Rinse cautiously with water for several minutes. Remove contact |
| lenses if present and easy to do - continue rinsing. |
| IF SKIN irritation or rash occurs: Get medical advice/attention. |
| Take off contaminated clothing and wash it before reuse. |
| Store locked up. |
| Store in a well-ventilated place. Keep container tightly closed. |
| Dispose of contents/container to an approved waste disposal plant. |
| |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

| Synonyms | : Benzene 1,4-Diisocyanate;2-Fluoro-alpha-methyl-4-biphenylacetic acid |
|------------------|--|
| Formula | : C8H4N2O2 |
| Molecular weight | : 160.13 |
| CAS No. | : 104-49-4 |
| EC-NO. | : 203-207-6 |
| | |

Component Classification Concentration 1,4-Phenylene diisocyanate no data available 98%

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician.Show this safety data sheet to the doctor in attendance.Move out of dangerous area. If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

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In case of skin contact Wash off with soap and plenty of water.Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.Continue rinsing eyes during transport to hospital. If swallowed Never give anything by mouth to an unconscious person.Rinse mouth with water.Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media no data available

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.- Carbon oxides, nitrogen oxides (NOx)

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust.Sweep up and shovel.Keep in suitable, closed containers for disposal.

6.4 Reference to other sections



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no data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Air and moisture sensitive. Handle and store under inert gas.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves.Gloves must be inspected prior to use.Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product.Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.Wash and dry hands. Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100(US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

no data available

SECTION 9: Physical and chemical properties

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9.1 Information on basic physical and chemical properties

| a) Appearance | no data available |
|--|---|
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | no data available |
| e) Melting point/freezing point | 96 - 99 °C (205 - 210 °F) - lit. |
| f) Initial boiling point and boiling range | 260 °C (500 °F) - lit. |
| g) Flash point | > 113 °C (> 235 °F) - closed cup |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |
| j) Upper/lower flammability or | |
| explosive limits | no data available |
| k) Vapour pressure | < 0.01 hPa (< 0.01 mmHg) at 20 °C (68 °F) |
| l) Vapour density | no data available |
| m) Relative density | no data available |
| n) Water solubility | no data available |
| o) Partition coefficient: n-octanol/water | no data available |
| p) Auto-ignition temperature | no data available |
| q) Decomposition temperature | no data available |
| r) Viscosity | no data available |
| s) Explosive properties N | no data available |
| t) Oxidizing properties N | no data available |
| | |

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions no data available

10.4 Conditions to avoid

Air

10.5 Incompatible materials

Strong oxidizing agents, Amines, Strong bases, Strong acids

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10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.- Carbon oxides, nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity Skin - rabbit - Severe skin irritation

Skin corrosion/irritation no data available Serious eye damage/eye irritation no data available Respiratory or skin sensitisation no data available Germ cell mutagenicity no data available Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity no data available Specific target organ toxicity - single exposure no data available Specific target organ toxicity - repeated exposure no data available Aspiration hazard Toxic if inhaled.Material is extremely destructive to the tissue of the mucous membranes Additional Information no data available

SECTION 12: Ecological information

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil



no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.Contact a licensed professional waste disposal service to dispose of this material.Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

| DOT (US) UN number: 3335 | Decking group, no data available | Class: 9 |
|-----------------------------------|----------------------------------|-----------------------------------|
| UN HUHDEL 3335 | Packing group: no data available | Class. 9 |
| Proper shipping name: no data | Reportable Quantity(RQ): no data | Poison Inhalation Hazard: no data |
| available | available | available |
| Environmental Hazards: No | | |
| IMDG | | |
| UN number: 3335 | Packing group: no data available | EMS-No: no data available |
| Proper shipping name: no data ava | ilable | |
| ΙΑΤΑ | | |
| UN number: 3335 | Packing group: no data available | Class: 9 |
| Proper shipping name: no data ava | ilable | |

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

| Regulatory Affairs ALADDIN SCIENTIFIC CORPORATION Email: QualityAssurance@aladdinsci.com |
|--|
| 10-Sep-2020 25-Jan-2024 |
| |



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