

N-isopropyl-N'-phenyl-p-phenylenediamine 101-72-4 MSDS

Section 1. IDENTIFICATION

Product name: 4-Isopropylaminodiphenylamine

Revision number: 5

Section 2. HAZARDS IDENTIFICATION

GHS classification

PHYSICAL HAZARDS Not classified

HEALTH HAZARDS

Acute toxicity (Oral) Category 4

Category 2

Skin corrosion/irritation

Serious eye damage/eye irritation Category 2A

Category 1

Skin sensitization

ENVIRONMENTAL HAZARDS

Category 1

Acute aquatic hazard

Long-term aquatic hazard Category 1

GHS label elements, including precautionary statements

Pictograms or hazard symbols

Warning

Signal word

Hazard statements Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

Precautionary statements:

Avoid breathing dust/fume/gas/mist/vapours/spray.

[Prevention]

Avoid release to the environment.

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

Contaminated work clothing should not be allowed out of the workplace.

Wash hands thoroughly after handling.

Wear protective gloves/eye protection/face protection.

4-Isopropylaminodiphenylamine

Section 2. HAZARDS IDENTIFICATION

[Response] IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse mouth.

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 ON SKIN: Gently wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Collect spillage.

[Disposal] Dispose of contents/container through a waste management company authorized by the local government.

Other hazards which do not result in classification Dust explosion possible if in powder or granular form, mixed with air.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

4-Isopropylaminodiphenylamine

Components:

Percent: >98.0%(LC)(T)

CAS Number: 101-72-4

Synonyms: N-Isopropyl-N'-phenyl-1,4-phenylenediamine

Chemical Formula: C₁₅H₁₈N₂

Section 4. FIRST AID MEASURES

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Inhalation:

Get medical advice/attention if you feel unwell.

Remove/Take off immediately all contaminated clothing. Gently wash with plenty of

Skin contact:

soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact: 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.

Ingestion: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Most important symptoms/effects, acute and delayed: Redness, Pain

symptoms/effects, acute and delayed:

A rescuer should wear personal protective equipment, such as rubber gloves and air-

Protection of first-aiders:

tight goggles.

Section 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, water spray, carbon dioxide.

Specific hazards arising from the chemical: Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.

Precautions for firefighters: Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.

Special protective equipment for firefighters: When extinguishing fire, be sure to wear personal protective equipment.

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Section 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and entry to non-involved personnel should be controlled around the leakage area by emergency procedures: roping off, etc.

Environmental precautions: Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned.

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are concerned.

4-Isopropylaminodiphenylamine

Section 6. ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning: Sweep dust to collect it into an airtight container, taking care not to disperse it.

Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

Section 7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures: Handling is performed in a well ventilated place. Wear suitable protective equipment.

Prevent dispersion of dust. Wash hands and face thoroughly after handling.

Use a local exhaust if dust or aerosol will be generated.

Advice on safe handling: Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a cool and dark place. Store under inert gas.

Store away from incompatible materials such as oxidizing agents.

Air-sensitive

Comply with laws.

Packaging material:

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Install a closed system or local exhaust as possible so that workers should not be

exposed directly. Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection: Dust respirator. Follow local and national regulations.

Hand protection: Protective gloves.

Safety glasses. A face-shield, if the situation requires.

Eye protection:

Skin and body protection: Protective clothing. Protective boots, if the situation requires.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Solid

Crystal- Powder

Form:

Colour: Pale gray - Reddish gray

No data available

Odour:

pH: No data available

Melting point/freezing point:80°C

Boiling point/range: 180°C/0.7kPa

198°C

Flash point:

Flammability or explosive

limits:

Lower: No data available

Upper: No data available

4.5x10⁻³Pa/25°C

Vapour pressure:

Relative density: No data available

Solubility(ies):

Insoluble (600mg/L, 20°C)

[Water]

[Other solvents]

Very soluble: Methanol, Benzene, Acetone, Chloroform, Ethanol, Toluene

Slightly soluble: Hexane

Log Pow: 3.3

Section 10. STABILITY AND REACTIVITY

Chemical stability: Stable under proper conditions.

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

reactions:

Conditions to avoid: Static discharge

Incompatible materials: Oxidizing agents

4-Isopropylaminodiphenylamine

Section 10. STABILITY AND REACTIVITY

Hazardous decomposition Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx) products:

Section 11. TOXICOLOGICAL INFORMATION

Acute Toxicity: orl-mus LD50:1122 mg/kg

orl-rat LD50:720 mg/kg

orl-rbt LD:>7500 mg/kg

Skin corrosion/irritation: No data available

eye-rbt 100 mg/24H MOD

Serious eye

damage/irritation:

Germ cell mutagenicity: No data available

Carcinogenicity:

IARC = No data available

NTP = No data available

Reproductive toxicity: No data available

RTECS Number: ST2650000

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fish: 48h LC50:0.714 mg/L (*Oryzias latipes*)

No data available

Crustacea:

Algae: No data available

Persistence / degradability: No data available

Bioaccumulative potential(BCF): 3.3 - 9.2 (conc. 100 ug/L), 14 - 49 (conc. 10 ug/L)

Mobility in soil

3.3

Log Pow:

1.3 x 10⁴

Soil adsorption (Koc):

1.4 x 10⁻⁴

Henry's Law**constant(PaM³/mol):****Section 13. DISPOSAL CONSIDERATIONS**

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material

with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system.

Observe all federal, state and local regulations when disposing of the substance.

Section 14. TRANSPORT INFORMATION

9: Miscellaneous dangerous goods.

Hazards Class:**UN-No:** 3077

Environmentally hazardous substance, solid, n.o.s.

Proper shipping name:**Packing group:** III**Marine pollutant** Y**Section 15. REGULATORY INFORMATION**

Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002

and revised on February 16,2011): Safe use and production, the storage of a dangerous chemical, transport,

loading and unloading were prescribed.

4-Isopropylaminodiphenylamine

SECTION 16 - ADDITIONAL INFORMATION

N/A
