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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Diphenylamine, 98% Product Code: D 2275 CAS No : 122-39-4

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email <u>info@ottokemi.com</u>

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Acute toxicity, (Category 3) Acute toxicity, (Category 3) Acute toxicity, (Category 3) Specific target organ toxicity repeated exposure, (Category 2) Kidney, Liver, spleen Short-term (acute) aquatic hazard, (Category 1) Long-term (chronic) aquatic hazard, (Category 1) 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Hazard Statements H301 + H311 + H331 H373 prolonged or repeated exposure. . H410 Precautionary Statements P273 P280 P301 + P310 P302 + P352 + P312 P304 + P340 + P311

P314 Supplemental Hazard Statements Reduced Labeling (<= 125 ml) Pictogram Signal Word Hazard Statements H301 + H311 + H331 Precautionary Statements P280 P301 + P310 H301: Toxic if swallowed. H331: Toxic if inhaled. H311: Toxic in contact with skin. H373: May cause damage to organs through prolonged or repeated exposure.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

Danger

Toxic if swallowed, in contact with skin or if inhaled. May cause damage to organs (Kidney, Liver, spleen) through

Very toxic to aquatic life with long lasting effects.

Avoid release to the environment. Wear protective gloves/ protective clothing. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ doctor if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. Get medical advice/ attention if you feel unwell. none

Danger

Toxic if swallowed, in contact with skin or if inhaled.

Wear protective gloves/ protective clothing. IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

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doctor if you feel unwell.

none

IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/

IF INHALED: Remove person to fresh air and keep comfortable

for breathing. Call a POISON CENTER/ doctor.

P302 + P352 + P312

P304 + P340 + P311

Supplemental Hazard Statements

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

| 3.1 Substances | |
|------------------|----------------|
| Formula | : C12H11N |
| Molecular weight | : 169,22 g/mol |
| CAS-No. | : 122-39-4 |
| EC-No. | : 204-539-4 |

| Component | Classification | Concentration |
|--------------------------------------|---|---------------|
| diphenylamine | | |
| CAS-No. 122-39-4 EC-No. 204-539-4 | Acute Tox. 3; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H331, H311, H373, H400, H410 | <= 100 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal

(20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section

2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media Water Foam Carbon dioxide (CO2) Dry powder Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Carbon oxides Nitrogen oxides (NOx) Combustible. Fire may cause evolution of: nitrous gases, nitrogen oxides Development of hazardous combustion gases or vapours possible in the event of fire. 5.3 Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. 5.4 Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. **SECTION 6: Accidental release measures** 6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. 6.2 Environmental precautions Do not let product enter drains. 6.3 Methods and materials for containment and cleaning up Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts. 6.4 Reference to other sections For disposal see section 13. **SECTION 7: Handling and storage** 7.1 Precautions for safe handling Advice on safe handling Work under hood. Do not inhale substance/mixture. Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Protected from light.Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to gualified or authorized persons. Recommended storage temperature see product label. Storage class Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated **SECTION 8: Exposure controls/personal protection** 8.1 Control parameters Ingredients with workplace control parameters

8.Ž Exposure controls Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate

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| government standards such as NIOSH (US) or EN 166(EU). | . Safety glasses | | |
|--|--|--|--|
| Skin protection | | | |
| This recommendation applies only to the product stated in the | | | |
| supplied by us and for the designated use. When dissolving in or mixing with other | | | |
| | substances and under conditions deviating from those stated in EN 16523-1 please | | |
| contact the supplier of CE-approved gloves (e.g. KCL Gmb- | H, D-36124 Eichenzell, | | |
| Internet: www.kcl.de). | | | |
| Full contact Material: Nitrile rubber | | | |
| | | | |
| Minimum layer thickness: 0,11 mm Break through time: 480 min | | | |
| Material tested:KCL 741 Dermatril® L | | | |
| This recommendation applies only to the product stated in the | ne safety data sheet | | |
| supplied by us and for the designated use. When dissolving | | | |
| substances and under conditions deviating from those state | | | |
| contact the supplier of CE-approved gloves (e.g. KCL Gmb- | | | |
| Internet: www.kcl.de). | | | |
| Splash contact | | | |
| Material: Nitrile rubber | | | |
| Minimum layer thickness: 0,11 mm | | | |
| Break through time: 480 min | | | |
| Material tested:KCL 741 Dermatril® L | | | |
| Body Protection | | | |
| protective clothing | | | |
| Respiratory protection | | | |
| required when dusts are generated. Our recommendations on filtering respiratory protection are | based on the following | | |
| standards: DIN EN 143, DIN 14387 and other accompanying | | | |
| the used respiratory protection system. | g standards relating to | | |
| Recommended Filter type: Filter type P3 | | | |
| The entrepeneur has to ensure that maintenance, cleaning | and testing of respiratory | | |
| protective devices are carried out according to the instructio | | | |
| These measures have to be properly documented. | | | |
| Control of environmental exposure | | | |
| Do not let product enter drains. | | | |
| | | | |
| SECTION 9: Physical and chemical properties 9.1 Information on basic physical and chemical properties | | | |
| a) Physical state | solid | | |
| b) Color | light yellow | | |
| c) Odor | No data available | | |
| d) Melting | Melting point/range: 53 - 54 °C | | |
| point/freezing point | and a second | | |
| e) Initial boiling point | 302 °C at 1.013 hPa | | |
| and boiling range | | | |
| f) Flammability (solid, | No data available | | |
| gas) | | | |
| g) Upper/lower | No data available | | |
| flammability or | | | |
| explosive limits | . | | |
| h) Flash point | No data available | | |
| i) Autoignition temperature | No data available | | |
| j) Decomposition | No data available | | |
| temperature | No data avaliable | | |
| k) pH | No data available | | |
| I) Viscosity | Viscosity, kinematic: No data available | | |
| , , | Viscosity, dynamic: No data available | | |
| m) Water solubility | insoluble | | |
| n) Partition coefficient: | log Pow: 3,5 | | |
| n-octanol/water | | | |
| | | | |

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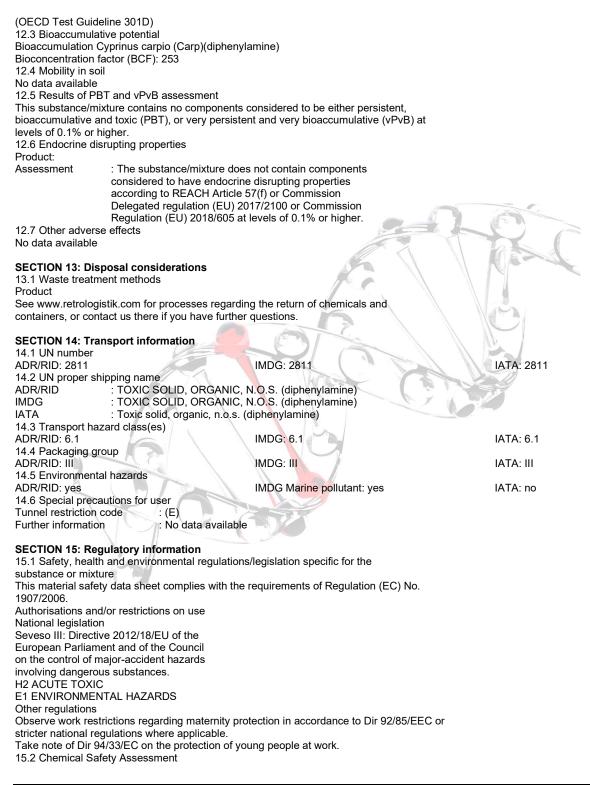
| o) Vapor pressure p) Density Relative density q) Relative vapor density r) Particle characteristics s) Explosive properties t) Oxidizing properties 9.2 Other safety information Bulk density Surface tension | 1 hPa at 108 °C 1,160 g/cm3 No data available No data available No data available No data available none ca.610 kg/m3 39,3 mN/m at 60 °C | |
|--|--|--|
| Surface tension 39,3 mN/m at 60 °C SECTION 10: Stability and reactivity 10.1 Reactivity The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature) . 10.3 Possibility of hazardous reactions Violent reactions possible with: Oxidizing agents Strong acids 10.4 Conditions to avoid no information available 10.5 Incompatible materials No data available 10.6 Hazardous decomposition products In the event of fire: see section 5 | | |
| SECTION 11: Toxicological information 11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on other Toxic Effects on Humans: Not available. | | |
| SECTION 12: Ecological information 12.1 Toxicity Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 3,79 mg/l - 96,0 h LC50 - Oryzias latipes (Orange-red killifish) - 2,2 mg/l - 48 h Remarks: (IUCLID) Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 2 mg/l - 48 h (OECD Test Guideline 202) Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 2,17 mg/l - 72 h (OECD Test Guideline 201) NOEC - Pseudokirchneriella subcapitata - 0,37 mg/l - 72 h (OECD Test Guideline 201) 12.2 Persistence and degradability Biodegradability aerobic - Exposure time 28 d Result: 26 % - Not readily biodegradable. | | |

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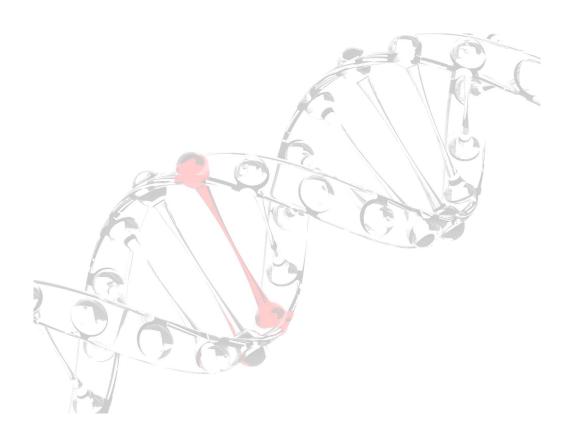
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For this product a chemical safety assessment was not carried out

Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.



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