

INDOLE, AR GRADE (1-Benzo-Pyrrole)

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: INDOLE, AR GRADE (1-Benzo-Pyrrole)

Product Code: 1916

CAS#: 120-72-9

Synonym: 1H-Benzo[b]pyrrole

Chemical Name: Not available

Chemical Formula: C₈H₇N

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Composition:

Name INDOLE

Toxicological Data on Ingredients: Acute Tox. 4; Acute Tox.

3; Eye Irrit. 2; Aquatic Acute 1; H302, H311, H319, H400

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Dermal (Category 3), H311

Eye irritation (Category 2), H319

Short-term (acute) aquatic hazard (Category 1), H40

SECTION 4: FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact: Wash off immediately with soap and plenty of water. Cover the irritated skin with emollient. Immediate medical attention is required.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Get medical attention.

Serious Inhalation: Not Available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

SECTION 5: FIRE AND EXPLOSION DATA

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.

Special hazards arising from the substance or mixture



Carbon oxides
Nitrogen oxides (NOx)
Combustible.
Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.

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.

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

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

SECTION 7: HANDLING AND STORAGE

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Air and light sensitive.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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 Safety glasses with side-shields conforming to EN166 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 glove's 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 For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form

: Solid

Colour

: White , Beige



Odour	: characteristic
Odour Threshold	: Not available
pH	: Not available
Melting point/freezing point	: Melting point/range: 51 - 54 °C - lit.
Initial boiling point and boiling range	: 253 - 254 °C - lit.
Flash point	: Not available
Evaporation rate	: Not available
Flammability (solid, gas)	: Not available
Upper/lower flammability or explosive limits	: Not available
Vapour pressure	: Not available
Vapour density	: Not available
Relative density	: Not available
Water solubility	: Not available
Partition coefficient	: Not available
Auto-ignition temperature	: Not available

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is chemically stable under standard ambient conditions (room temperature).

Instability Temperature: Not available.

Conditions of Instability: Air Light. Strong heating.

Incompatibility with various substances: Not applicable

Corrosivity: Not applicable

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - Rat - 1.000 mg/kg

Remarks: (RTECS)Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Inhalation: No data available

LD50 Dermal - Rabbit - 790 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Remarks: (External MSDS)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Severe irritations

Remarks: (RTECS)

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Remarks: (Lit.)

Carcinogenicity



No data available

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

No data available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 10 mg/l - 24 h

Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 1 mg/l - 48 h

and other aquatic

invertebrates

Toxicity to bacteria microtox test EC50 - Photobacterium phosphoreum - 2,4 mg/l - 30min

Persistence and degradability

Biodegradability Result: 100 % - Readily biodegradable.

Biochemical Oxygen Demand (BOD) 2.070 mg/g

Theoretical oxygen demand 2.460 mg/g

Ratio BOD/ThBOD 84 %

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

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.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. 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

UN number:

ADR/RID: 2811

IMDG: 2811

IATA:2811

UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (indole)

IMDG: TOXIC SOLID, ORGANIC, N.O.S. (indole)

IATA: TOXIC SOLID, ORGANIC, N.O.S. (indole)

Transport hazard class(es):

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

Packaging group:

ADR/RID: III

IMDG:III

IATA: III



Environmental hazards:

ADR/RID: Yes

IMDG Marine pollutant: Yes

IATA: No

SECTION 15: OTHER REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

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

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ENVIRONMENTAL HAZARDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life

Other Special Considerations: Not available

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