



Material Safety Data Sheet Brucine

SECTION 1.1 – PRODUCT IDENTIFICATION

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|-------------------|---|---|
| Product Name | : | Brucine |
| Molecular Formula | : | C ₂₃ H ₂₆ N ₂ O ₄ |
| Molecular Weight | : | 394.45 g/mole |
| CAS No. | : | 357-57-3 |

SECTION: 1.2 – COMPANY IDENTIFICATION

Company Name: Indenta Chemicals (India) Pvt. Ltd.

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SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

| Name | CAS # | % by Weight |
|---------|----------|-------------|
| Brucine | 357-57-3 | 100 |

Toxicological Data on Ingredients: Brucine LD50: Not available. LC50: Not available

SECTION 3: HAZARD IDENTIFICATION

Potential Acute Health Effects: Extremely hazardous in case of skin contact (sensitizer), of ingestion. Very hazardous in case of inhalation (lung irritant). Hazardous in case of skin contact (irritant), of eye contact (irritant), . Severe over-exposure can result in death.

Potential Chronic Health Effects: Extremely hazardous in case of ingestion, of inhalation. Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant). **CARCINOGENIC EFFECTS:** Not available. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance is toxic to the nervous system, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

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. Cold water may be used. Get medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

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

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion: If swallowed, 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 immediately.

Serious Ingestion: Not available.

SECTION 5: FIRE AND EXPLOSION DATA

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...).

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

SECTION 7: HANDLING AND STORAGE

Precautions: Keep locked up. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid. (Powdered solid.)

Odor: Odorless.

Taste: Bitter. (Strong.)

Molecular Weight: 394.45 g/mole

Color: White.

pH (1% soln/water): Not available.

Boiling Point: Decomposes.

Melting Point: 178°C (352.4°F)

Critical Temperature: Not available.

Specific Gravity: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff: The product is equally soluble in oil and water; $\log(\text{oil/water}) = 0.1$

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, methanol.

Solubility: Soluble in methanol. Partially soluble in cold water.

SECTION 10: STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals: LD50: Not available. LC50: Not available.

Chronic Effects on Humans: Causes damage to the following organs: the nervous system, mucous membranes.

Other Toxic Effects on Humans: Extremely hazardous in case of skin contact (sensitizer), of ingestion. Very hazardous in case of inhalation (lung irritant). Hazardous in case of skin contact (irritant),

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the original product.

Special Remarks on the Products of Biodegradation: Not available.

SECTION 13: DISPOSAL CONSIDERATION

Waste Disposal:

SECTION 14: TRANSPORT INFORMATION

DOT Classification: CLASS 6.1: Poisonous material.

Identification: : Brucine UNNA: UN1570 PG: I

Special Provisions for Transport: Not available.

SECTION 15: OTHER REGULATORY INFORMATION

Federal and State Regulations: Pennsylvania RTK: Brucine Massachusetts RTK: Brucine TSCA 8(b) inventory: Brucine SARA 313 toxic chemical notification and release reporting: Brucine CERCLA: Hazardous substances.: Brucine Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).

DSCL (EEC): R36/37/38- Irritating to eyes, respiratory system and skin. R43- May cause sensitization by skin contact.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

SECTION 16: ADDITIONAL INFORMATION

This information is provided for documentation purposes only.

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