OTTO CHEMIE PVT LTD

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-----ISO 9001: 2015------

MATERIAL SAFETY DATA SHEET

1.IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1.1Product identifiers Brucine, GR 99%+ Code: B 2245

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS CAS Chemical Name % EINECS

CAS Chemical Name % 357-57-3 Brucine, anhydrous 99.0 206-614-7 | Hazard Symbols: T+ Risk Phrases: 26/28

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW Very toxic by inhalation and if swallowed. Potential Health Effects Eye: May cause moderate eye irritation. Skin: May cause skin irritation. Ingestion: May cause irritation of the digestive tract. Poison by ingestion. May cause tremors and convulsions. Inhalation: May cause respiratory tract irritation. May cause effects similar to those described for ingestion. Chronic:

No information found.

SECTION 4 - FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Skin:

Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. SPEED IS ESSENTIAL. A DOCTOR MUST BE NOTIFIED AT ONCE. Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If

breathing is difficult, give oxygen. Notes to Physician:

SECTION 5 - FIRE FIGHTING MEASURES

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Sweep up, then place into a suitable container for disposal.

SECTION 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Do not get on skin or in eyes. Do not ingest or inhale. Use only in a chemical fume hood. Storage:

Poison room locked.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels. Exposure Limits CAS# 357-57-3: Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin. Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid Color: White Odor: None reported. pH: Not available. Vapor Pressure: Not available. Viscosity: Not available. Boiling Point: Not available. Freezing/Melting Point: 175-180 °C Autoignition Temperature: Not available. Flash Point: Not available. Explosion Limits, lower: Not available. Explosion Limits, upper: Not available. Decomposition Temperature: Solubility in water: slightly soluble Specific Gravity/Density: Molecular Formula: C23H26N2O4 Molecular Weight: 394.46

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures. Conditions to Avoid: None reported. Incompatibilities with Other Materials: Strong oxidizing agents. Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen. Hazardous Polymerization: Has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#: CAS# 357-57-3: EH8925000 LD50/LC50: CAS# 357-57-3: Oral, mouse: LD50 = 150 mg/kg. Carcinogenicity: Brucine, anhydrous -Not listed by ACGIH, IARC, or NTP. Other: See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

12.1Toxicity Toxicity to fish LC50 - Lepomis macrochirus - 36,0 mg/l - 96,0 h 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

SECTION 14 - TRANSPORT INFORMATION

IATA Shipping Name: BRUCINE Hazard Class: 6.1 UN Number: 1570 Packing Group: I IMO Shipping Name: BRUCINE Hazard Class: 6.1 UN Number: 1570 Packing Group: I RID/ADR Shipping Name: BRUCINE Hazard Class: 6.1 UN Number: 1570 Packing group: I USA RQ: CAS# 357-57-3: 100 lb final RQ; 45.4 kg final RQ

SECTION 15 - REGULATORY INFORMATION

European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: T+ **Risk Phrases:** R 26/28 Very toxic by inhalation and if swallowed. Safety Phrases: S 1 Keep locked up. S 13 Keep away from food, drink and animal feeding stuffs. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). WGK (Water Danger/Protection) CAS# 357-57-3: 3 Canada CAS# 357-57-3 is listed on Canada's DSL List. CAS# 357-57-3 is listed on Canada's Ingredient Disclosure List. **US FEDERAL** TSCA CAS# 357-57-3 is listed on the TSCA inventory.

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.