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Material Safety Data Sheet

Benzophenone

Section 1 - Chemical Product and Company Identification MSDS Name: Benzophenone Catalog Numbers: 10556-0000, 10556-0010, 10556-5000, 21968-0000, 21968-5000 Synonyms: Diphenylmethanone; Diphenyl

Section 2 - Composition, Information on Ingredients CAS -119-61-9 # Chemical Name: Benzophenone >99% EINECS# 204-337-6

Section 3 - Hazards Identification EMERGENCY OVERVIEW Irritating to eyes, respiratory system and skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Potential Health Effects Eye: Causes eye irritation. Skin: Causes skin irritation. May be harmful if absorbed through the skin. Ingestion: May cause irritation of the digestive tract. Ingestion of large amounts may cause gastrointestinal irritation. May cause nausea and vomiting. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause drowsiness, unconsciousness, and central nervous system depression. May be harmful if inhaled. Chronic: Prolonged or repeated skin contact may cause dermatitis.

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. Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water. Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures General Information: As in any fire, wear a self-contained breathing apparatus in pressuredemand, MSHA/NIOSH (approved or equivalent), and full protective gear. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media: Do NOT use water directly on fire. Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Do not let this chemical enter the environment.

Section 7 - Handling and Storage Handling: Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Take precautionary measures against static discharges. Avoid ingestion and inhalation. Storage: Store in a cool, dry place. Store in a tightly closed container. Keep from contact with oxidizing materials.

Section 8 - Exposure Controls, Personal Protection Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Exposure Limits CAS# 119-61-9: Personal Protective Equipment Eyes: Wear chemical splash goggles. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure. 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: Flakes Color: white to off-white

Odor: rose-like - strong odor

pH: Not available

Vapor Pressure: 1.3hPa @108 deg C

Viscosity: Not available

Boiling Point: 305 deg C @760mmHg (581.00°F)

Freezing/Melting Point: 47 - 49 deg C

Autoignition Temperature: Not available

Flash Point: 143 deg C (289.40 deg F)

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

Decomposition Temperature: Not available

Solubility in water: Insoluble

Specific Gravity/Density: Molecular Formula: C13H10O Molecular Weight: 182.22

Section 10 - Stability and Reactivity Chemical Stability: Stable under normal temperatures and pressures. Conditions to Avoid: Incompatible materials. Incompatibilities with Other Materials Strong oxidizing agents, strong reducing agents. Hazardous Decomposition Products Carbon monoxide, carbon dioxide. Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information RTECS#: CAS# 119-61-9: DI9950000 LD50/LC50: RTECS: CAS# 119-61-9: Oral, mouse: LD50 = 2895 mg/kg; Oral, rat: LD50 = >10 gm/kg; Skin, rabbit: LD50 = 3535 mg/kg; . Carcinogenicity: Benzophenone - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12 - Ecological Information Not available Section

13 - Disposal Considerations Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information IATA IMO RID/ADR Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.* ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. Hazard Class: 9 9 9 UN Number: 3077 3077 3077 Packing Group: III III III Severe Marine Pollutant

Section 15 - Regulatory Information European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: XI N Risk Phrases: R 36/37/38 Irritating to eyes, respiratory system and skin. R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Safety Phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 29 Do not empty into drains. S 37/39 Wear suitable gloves and eye/face protection. WGK (Water Danger/Protection) CAS# 119-61-9: 1 Canada CAS# 119-61-9 is listed on Canada's DSL List US Federal TSCA CAS# 119-61-9 is listed on the TSCA Inventory. Section

16 - Other Information MSDS Creation Date: 9/10/1996 Revision #2 Date 11/16/2004 Revisions were made in Sections: General revision.

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