



CHENZONE NBC - MSDS

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CHENZONE NBC

MSDS N° CH0377

Chemical Name: Nickel Dibutyldithiocarbamate

Synonyms: Bis(dibutyldithiocarbamate)nickel; Nickel, bis(dibutylcarbamoedithio-,S,S')-; NDBC

Use: Rubber Accelerator ,antiozonant.

Manufactured By: Chemicon S/A
phone 55-11-3782-5002

Emergency Telephone:

CHEMTREC: 1-800-424-9300 (TOLL FREE - USA and Territories)

CANUTEC: 613-996-6666 (Canada)

SETIQ: 91-800-00-214 (Mexico)

ABQUIM: 55-0800-11-8270 (Brazil)

Prepared By: Chemicon S/A
phone 55-11-3782-5002

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS#	Percent
Nickel Dibutyldithiocarbamate	13927-77-0	97-99%

3. HAZARDS IDENTIFICATION

Hazard Information

Emergency Overview: Burning sulfur emits highly toxic fumes! WARNING! Dust may be irritating to eyes and upper respiratory tract. Fine dust clouds may form explosive mixtures with air. Highly toxic to fish and aquatic invertebrates. May cause sensitization by skin contact. May cause alcohol intolerance

Eye Contact: Causes mild eye irritation . Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.

Skin Contact: May cause an allergic skin reaction. May be absorbed through the skin and product effects similar to those caused by inhalation and/or ingestion.

Inhalation: Exposure to dust particles generated from this material may cause irritation of the respiratory tract. Inhalation may cause alcohol intolerance

Ingestion: May cause alcohol intolerance (Antabuse Effect) May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation.

4. FIRST AID MEASURES

In Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

On Skin: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and laundry before reuse. Get medical attention if irritation persists.

Inhaled: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Swallowed: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Notes To Physician: Treat symptomatically. Exposure by ingestion, inhalation or skin absorption may cause alcohol intolerance (Antabuse Effect)

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): 500°F / 260°C

Flash Point Method: Not Determined

Autoignition Temp. (°F/C): Not Determined

Lower Explosion Limit in Air (LEL): Not determined.

Upper Explosion Limit in Air (UEL): Not determined.

Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical

Special Exposure Hazards: Fight fire from a safe distance and from a protected location. Use water spray to cool fire exposed surfaces. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways.

Special Protective Equipment: Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

Unusual Fire/Explosion Hazards: Toxic emissions may result if product is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Wear protective equipment specified. Avoid the generation of dust. Sweep, vacuum, or shovel and place into closable container for disposal.

Procedure for Cleaning/Absorption: Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy. Scoop up and remove. Do NOT spread spilled product with water.

CERCLA Reportable Quantity (RQ): Not Applicable

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid generating or breathing dust. Wash thoroughly with soap and water after handling. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Reclose containers of unused product. Keep containers tightly closed when not in use. Do not reuse this container.

Storage: Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Wear safety glasses or goggles to protect against exposure.

Skin Protection: Normal work coveralls. Launder contaminated clothing before reuse.

Gloves: Use gloves as a standard industrial handling procedure. Appropriate chemical resistant gloves should be worn.

Respiratory Protection: Use in a well ventilated area. Use approved NIOSH respiratory protection if TLV exceeded..... Or over exposure is likely. Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.

Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.

Airborne Exposure Limits: Air exposure limits for Nickel Compounds:

OSHA PEL/8Hr TWA = 1mg/m³

ACGIH TLV/8Hr

TWA = 1 mg/m³

NIOSH REL: 15 mg/m³

White Mineral Oil:

OSHA PEL/8-Hr

TWA = 5mg/m³

ACGIH TLV/8-Hr

TWA = 5mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Green Powder
Odor: CHARACTERISTIC
pH: N/A
Specific Gravity: 1.26 @20°C
Density: Unknown
Bulk Density: 300-340 kg/m³ @20°C
Melting Point (°F/C): 185°F / 85°C
Boiling Point (°F/C): Not Determined
Vapor Pressure: Negligible @ 20°C
Vapor Density (Air=1): Not Determined
% Volatile by Volume: <0.5% by weight
Solubility in Water: Negligible
Other Solubility: Soluble in Benzene Carbon Disulfide Organic liquids, including fats and oils Acetone
Viscosity: Not determined.
Other Data: Not determined.
Molecular Weight: 467
Molecular Formula: C₁₈-H₃₆-N₂-S₄-Ni

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation.

Hazardous Polymerization: WILL NOT OCCUR

Conditions to Avoid: Not determined.

Materials to Avoid: Avoid contact with acidic, basic or oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide Oxides of nitrogen Oxides of sulfur Oxides of nickel Toxic metal fumes

Additional Guidelines: Not Applicable

11. TOXICOLOGICAL INFORMATION

Target Organs

Acute Oral LD50 (mg/kg): > 5000 mg/kg

Acute Dermal LD50 (mg/kg): > 2000 mg/kg

Acute Inhalation LC50 (mg/l): Not determined

Principle Routes of Exposure: Dermal - skin. Inhalation.

Ingestion: May cause alcohol intolerance (Antabuse Effect) May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation.

Skin Contact: May cause an allergic skin reaction. May be absorbed through the skin and product effects similar to those caused by inhalation and/or ingestion.

Inhalation: Exposure to dust particles generated from this material may cause irritation of the respiratory tract. Inhalation may cause alcohol intolerance

Eye Contact: Causes mild eye irritation . Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.

Aggravated Conditions: Alcohol consumption problems.

Carcinogenicity Comment: This product or one of its ingredients present 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA. Carcinogenic: Category 3 NOTE: May react with nitrosating agents during rubber vulcanization to form nitrosamines. Some nitrosamines are suspect human carcinogens. Nickel and certain nickel compounds: There is sufficient evidence of the carcinogenicity of nickel and nickel compounds (NTP-1985) also, (IARC 1976, vol. 11) states there is sufficient evidence for the carcinogenicity of certain nickel compounds. Nickel subsulfide is carcinogenic in rats by inhalation, producing lung cancer. Nickel compounds (nickel powder, subsulfide, oxide, carbonate, and nickelocene) produced local sarcomas in mice, rats and hamsters when given intramuscularly. Inhalation of nickel carbonyl produced a low incidence of lung tumors in rats.

Other: Ingestion of the product may result in vomiting.

Primary Irritation Effect: Practically non-irritating

Carcinogenicity: Negative in standard tests using bacteria and yeast cells

Genotoxicity: None

Reproductive/Developmental Toxicity: Not determined

12. ECOLOGICAL INFORMATION

Acute Fish Toxicity: Not determined

Acute Crustaceans Toxicity: Not determined

Acute Algae Toxicity: Not determined

Octanol/Water Coefficient: Not determined.

Chemical Fate Information: Not determined

Other Information: Not Applicable

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: This product, if disposed as received, is a non-hazardous waste. Bury in a licensed landfill or burn in an approved incinerator according to federal, state, and local regulations. Federal, state and local disposal laws and regulations will determine the proper waste disposal/recycling/reclamation procedure. Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected.

Contaminated Packaging: If empty container retains product residues, all label precautions must be observed. Transport with all closures in place. Return for reuse or dispose according to national or local regulations. Do NOT reuse container. Dispose of container according to national or local regulations.

14. TRANSPORT INFORMATION

DOT:DOT Status: Not Regulated

DOT Shipping Name: NONE

DOT Reportable Quantity (lbs): None

ICAO/IATA:Status: NONE

Proper Shipping Name: None

UN/NA Number: NONE

IMDG:Status: Not Regulated

Proper Shipping Name: None

TDG (Canada):Status: Not determined.

Proper Shipping Name: None

15. REGULATORY INFORMATION

Worldwide Inventory Status

TSCA (USA): Listed

Canadian DSL: Listed

Canadian NDSL: N/A

EINECS/ELINCS (Europe): Listed

Japanese Inventory (ENCS): Listed

Korean Chemical Inventory (ECL): Listed

Australian Chemical Inventories (AICS): Listed

New Zealand (NZ): Not Listed

Phillipines (PICCS) Inventory: Not determined

China (CLECS): None Identified.

US Regulatory Rules

SARA Section 302: Not Applicable

SARA 311/312 Hazard Categories: Immediate Delayed

SARA 313 Chemical: As "Nickel Compounds"

RCRA Status: Not a RCRA waste.

Other Regulations:

California Proposition 65: THIS PRODUCT CONTAINS CALIFORNIA PROPOSITION 65 CHEMICALS WHICH ARE LISTED BELOW. NICKEL AND CERTAIN NICKEL COMPOUNDS

New Jersey Right-to-Know List: N/A

Pennsylvania Right to Know List: N/A

Florida Right to Know: N/A

Minnesota Right to Know: N/A

MA Right to Know Law: N/A

FDA Status 21 CFR: Not Regulated For Use in 21 CFR

Canadian Regulations WHMIS Hazard Class: D2A VERY TOXIC MATERIALS

NPRI: N/A

16. OTHER INFORMATION

Hazard Rating Systems:

HMIS Classification: HEALTH 2, FLAMMABILITY 1, REACTIVITY 0

NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 0

The following has been revised since the last issue of this MSDS: Nothing has been revised.

Additional Information: Not Applicable.

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