SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **Westco NBC**

Other means of identification:

Product Description: Used as an accelerator for rubber vulcanization and an antioxidant for synthetic rubbers

Synonyms: Nickel-dibutyldithiocarbamate; NDBC, Accelerator NBC

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: Used as an antioxidant /antiozonant and UV stabilizer for NBR, SBR, BR and CR. It improves heat resistance of EPDM compounds and Hypalon. It is also used as a heat stabilizer for epichlorohydrin polymers and copolymers.

Chemical distributor, or other responsible party Name, address, and telephone number:

Distributor Name: Western Reserve Chemical Corporation

Address: 4837 Darrow Road
Stow, OH 44224
USA

General Phone Number: 330 650 2244

General Fax Number: 330 650 2255

Emergency phone number::

Emergency Phone Number: Chemtrec 1 800 424 9300 USA

Website: www.wrchem.com

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Pictograms:

Signal Word: DANGER!

Hazard Statements:
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer .
May cause damage to organs, (respiratory tract) through prolonged or repeated exposure.
May form combustible dust concentrations in air.

Precautionary Statements:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust or mist.
In case of inadequate ventilation wear respiratory protection: NIOSH approved dust respirator is recommended.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing and eye protection.
Wash hands thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace
Do not eat, drink or smoke when using this product.

Hazards not otherwise classified that have been identified during the classification process:

Emergency Overview:
Classification of Substance:
COMBUSTIBLE DUST
SENSITIZATION - RESPIRATORY - Category 1
SENSITIZATION - SKIN - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN (REPEATED EXPOSURE) - Respiratory - Category 1

Route of Exposure: Principle routes of Exposure: Inhalation. Dermal - skin.

Eye: Causes mild eye irritation. Signs/symptoms can include redness, swelling, pain and tearing.

Skin: 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. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

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

Carcinogenicity: Nickel and certain nickel compounds: There is sufficient evidence of the carcinogenicity of nickel and nickel compounds (NTP-1985). (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 low incidence of lung tumours in rats. NOTE: May react with nitrosating agents during rubbers vulcanization to form nitrosamines. Some nitrosamines are suspect human carcinogens.

OTHER: THE CARCINOGENIC POTENTIAL OF THIS PRODUCT, NICKEL DIBUTYLDITHIOCARBAMATE, HAS NOT BEEN DETERMINED. "Nickel Compounds", as a generic category, and some specific members of that category, are recognized as possible human carcinogens.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.
Mineral Oil	8042-47-5	Concentration: 0-2 %	
Nickel-dibuthyldithiocarbamate	13927-77-0	Concentration: 97 %	

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Skin Contact: Immediately wash with water and soap and rinse thoroughly for at least 15 minutes. Seek immediate medical advice. Remove contaminated clothing and launder before reuse. Get medical attention if irritation persists.

Inhalation: Supply fresh air. If required, provide artificial respiration. If breathing is difficult seek immediate medical advice.

Ingestion: Seek immediate medical attention. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Indication of immediate medical attention and special treatment needed:

Note to Physicians: Treat symptomatically. Exposure by ingestion, inhalation or skin absorption may cause alcohol intolerance (Antabuse Effect)

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical. DO NOT spread spilled product with water.

Unsuitable extinguishing media: Do not use water jet.

Unusual Fire Hazards: Toxic emissions may result if product is involved in a fire. Fire can produce toxic hydrogen cyanide, sulphur dioxide and oxides of nitrogen and nickel.
Minimum Ignition Energy (MIE) = < 3 mJ.

Special protective equipment and precautions for fire-fighters:

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

Fire Fighting Instructions: 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.

NFPA Ratings:

NFPA Health: 2
NFPA Flammability: 1
NFPA Reactivity: 0

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personnel Precautions: Non-Emergency Personnel:
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid

breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For Emergency Responders:
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in For nonemergency personnel.

Environmental precautions:

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up:

Spill Cleanup Measures: Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Methods for cleanup: 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.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

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, and 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.
Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources.
Take precautionary measures against electrostatic discharges.
To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Hygiene Practices: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities:

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

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Mineral Oil :

Guideline ACGIH: TWA: 0.2 mg/m³, (as Ni) 8 hours. Form: Inhalable fraction
Guideline OSHA: TWA: 1 mg/m³, (as Ni) 8 hours.
Guideline NIOSH: TWA: 0.015 mg/m³, (as Ni) 10 hours.

Appropriate engineering controls:

Engineering Controls: General; Local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollutions control regulations. Eliminate ignition sources.

Individual protection measures:

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

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

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

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

PPE Pictograms:

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State: Powder

Color: Olive green

Odor: Not Applicable

Boiling Point: not determined

Melting Point: 185 deg F/85 deg C

Density: Relative Density: 1.30 g/cm³

	Bulk Density: 300-340 kg/m3 @20 deg C
Specific Gravity:	1.26 @20 deg C
Solubility:	Other Solubility: Soluble in benzene, acetone, carbon disulfide, organic liquids, including fats and oils
Vapor Density:	(Air=1): Not determined
Vapor Pressure:	Negligible @20 deg C
Evaporation Rate:	not determined
pH:	Not Applicable
Molecular Formula:	C18-H36-N2-S4-Ni
Molecular Weight:	467
Coefficient of Water/Oil Distribution:	n-octonal/water: Log P = 5.44
Flash Point:	500 deg F/260 deg C

9.2. Other information:

Notes :	Flammability: Not determined Exposure Limits: See Section 3

SECTION 10 : STABILITY and REACTIVITY

Reactivity:

Reactivity:	No specific data available

Chemical Stability:

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

Possibility of hazardous reactions:

Hazardous Polymerization:	Will not occur

Conditions To Avoid:

Conditions to Avoid:	Avoid contact with heat, sparks, open flame, and static discharge. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.

Incompatible Materials:

Incompatible Materials:	Contact with oxidizing agents. Contact with acids.

Hazardous Decomposition Products:

Special Decomposition Products:	Carbon monoxide, Oxides of nitrogen, sulphur and nickel.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

NTP:	Known to be a human carcinogen.
Skin:	Target Organs: Acute Dermal LD 50 (mg/kg): > 2000 mg/kg (Rabbit)
Inhalation:	Target Organs: Acute Inhalation LC50 (mg/l): No mortalities in rats exposed to concentrations of 0.416 mg/L
Ingestion:	Target Organs: Acute oral LD 50 (mg/kg): > 5000 mg/kg (Rat)
Carcinogenicity:	May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity:	No known significant effects or critical hazards.
Reproductive Toxicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Notes :	Causes damage to organs through prolonged or repeated exposure. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

SECTION 12 : ECOLOGICAL INFORMATION

Other adverse effects:

Effect of Material On Aquatic Life:	Acute Fish Toxicity: Not determined Acute Crustacean Toxicity: Not determined
Notes :	No known significant effects or critical hazards.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal:	This material is not a RCRA hazardous waste. The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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.

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:	Non-regulated.
DOT UN Number:	None
DOT Hazard Class:	None
DOT Packing Group:	None
DOT Pictograms:	
IATA Shipping Name:	Non regulated.
IATA UN Number:	None
IATA Packing Group:	None
IATA Pictograms:	
IMDG UN NUmber :	Non regulated.
IMDG Shipping Name :	None
IMDG Hazard Class :	None
IMDG Packing Group :	None

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

TSCA Inventory Status:	All components are listed or exempted.
Section 302 EHS:	No products were found.
Section 304 RQ:	No products were found.
Section 311/312 Hazard Categories:	Fire hazard: Immediate (acute) health hazard Delayed (chronic) health hazard
California PROP 65:	WARNING! This product contains a chemical known to the State of California to cause cancer.
New Jersey:	The following components are listed: NICKEL compounds
Pennsylvania:	The following components are listed: NICKEL compounds
Risk Phrases:	R42 - May cause sensitization by inhalation. R43 - May cause sensitization by skin contact. R45 - May cause cancer.
Safety Phrase:	* S 9 - Keep container in a well-ventilated place. * S16 - Keep away from sources of ignition - No smoking. * S24/25 - Avoid contact with skin and eyes. * S36/39 - Wear suitable protective clothing and eye/face protection.

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	2
HMIS Fire Hazard:	1
HMIS Reactivity:	0
HMIS Personal Protection:	J

Health Hazard	**2**
Fire Hazard	**1**
Reactivity	**0**
Personal Protection	**J**

SDS Revision Date:	July 30, 2015
Notes :	Important Note: This information relates to the specific product described herein and may not be valid for this material when used in combination with other raw materials. The information provided is without warranty regarding its accuracy or completeness. The information may not be valid under all conditions. The user has the final responsibility for determining the suitability of the product in a given application.