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## MATERIAL SAFETY DATA SHEET

: According to EC-directive 2001/58/EC

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Rubber Antioxidant NBC

HS Code: 29302000.90

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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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<b>Product label name</b>	Nickel dibutyldithiocarbamate Qingdao YLSCH Industry&Trade Co.,Ltd
<b>Supplier</b>	Room 501,2-3 Unit. No.8,Zhengzhou Road, Qingdao,China. TEL: +86 18661665800
<b>Emergency telephone</b>	TEL: +86 18661665800
<b>Intended use</b>	Rubber Antioxidant

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

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<b>Chemical name</b>	Nickel dibutyldithiocarbamate
<b>CAS NO.</b>	13927-77-0
<b>Chemical description</b>	Olive green powder
<b>TSCA NO.</b>	none
<b>EINECS NO.</b>	none
<b>Other information</b>	C <sub>18</sub> H <sub>36</sub> N <sub>2</sub> S <sub>4</sub> Ni

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### 3. HAZARDS IDENTIFICATION

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Dust may cause eye and respiratory irritation. Dust suspended in air in critical proportions and in the presence of an ignition source may present an explosion hazard. Heating may generate vapors which can irritate the eyes and respiratory passages.

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### 4. FIRST AID MEASURES

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<b>Symptoms and effects</b>	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. Repeated contact may cause skin sensitization.
<b>First aid</b>	
<b>General</b>	In all cases of doubt, or when symptoms persist, seek medical attention.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, seek medical advice.
<b>Skin</b>	Remove all contaminated clothing immediately. Wash off with plenty of Water and non-abrasive soap. Seek medical advice if irritation develops. Launder clothes before reuse.

<b>Eye</b>	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.
<b>Ingestion</b>	Do not induce vomiting. Immediately give two glasses of water, a little at a time. Never give anything by mouth to an unconscious person. Call a physician. If vomiting occurs spontaneously, lower head below waist to prevent fluid from entering the lungs.
<b>Advice to physician</b>	No specific recommendations.

## 5. FIRE-FIGHTING MEASURES

<b>Extinguishing media</b>	waterspray, water mist, foam, dry chemical powder, CO <sub>2</sub>
<b>Unsuitable extinguishing media</b>	Waterjet
<b>Special exposure hazards</b>	Emits toxic fumes under fire conditions.
<b>Hazardous decomposition/ Combustion products</b>	Carbon monoxide (CO), nitrous gases (NOx).
<b>Protective equipment</b>	Wear self contained breathing apparatus.
<b>Other information</b>	Do not allow run-off from fire fighting to enter drains or water courses.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	For personal protection see Section 8. Avoid dust generation.
<b>Environmental precautions</b>	Avoid discharge into the environment. Collect as much as possible in a clean container for
<b>Methods for cleaning up</b>	(preferable) reuse or disposal.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling. Store in cool area. Keep away from heat, sparks, and flames. Under dusty conditions, static electricity may cause an explosion.
<b>Storage requirements</b>	No specific storage is required. Be sure that it is not necessary to strain to reach materials, and that shelves are not overloaded.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering controls</b>	Avoid dust generation.Ensure good ventilation and local exhaustion of the working area.
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**Exposure limits****Name:**Nickel dibutyldithiocarbamate**Personal protection****Respiratory**

Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment.

**Hand**

Wear suitable gloves.

**Eye**

Wear safety goggles.

**Skin and body**

Wear suitable protective clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Olive green powder	<b>Colour</b>	Olive green
<b>Odour</b>	---	<b>Boiling point</b>	---
<b>Melting point</b> ≥	85℃	<b>Flash point</b>	---
<b>Flammability</b>	---	<b>Explosion limits</b>	---
<b>Explosive properties</b>	---	<b>Autoignition temperature</b>	approx. 500℃
<b>Oxidizing properties</b>	not applicable	<b>Ash %</b>	---
<b>Density</b>	not applicable	<b>Loss on drying(%)</b> ≤	0.5
<b>Solubility in water</b>	Insoluble in cold water	<b>Solubility in other solvents</b>	Benzene,toluene ,chlorobenzen
<b>pH value</b>	---	<b>Nickel content (%)</b> /	11.8-13.2
<b>Residues (150um)% Max</b>	≤0.1	<b>Heating Loss % Max</b>	---
<b>Viscosity</b>	---	<b>Assay content %</b> ≥	95.0
<b>Strength of grain (N)</b>	---	<b>Oil content %</b>	1.0-2.0

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage and handling conditions (see section 7).
<b>Conditions to avoid</b>	Illumination
<b>Materials to avoid</b>	Strong oxidants, strong acid.
<b>Hazardous decomposition products</b>	Thermal decomposition products: carbon monoxide (CO), nitrous gases (NOx).

**11. TOXICOLOGICAL INFORMATION**

<b>Name</b>	Nickel dibutyldithiocarbamate
<b>Acute toxicity</b>	
<b>Oral LG50</b>	rat: 2370 mg/kg.

<b>Dermal LD50</b>	rabbit: 500 mg/kg.
<b>Irritation</b>	
<b>Skin</b>	Not expected to be a significant hazard.
<b>Eye</b>	Dust or fumes from heated material may cause irritation to eyes.

## 12. ECOLOGICAL INFORMATION

<b>Name</b>	Nickel dibutyldithiocarbamate
<b>Ecotoxicity</b>	
<b>Fish</b>	
<b>Daphnia</b>	
<b>Algae</b>	
<b>Degradation Biotic</b>	Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise.

## 13. DISPOSAL CONSIDERATIONS

<b>Product</b>	Avoid discharge into the environment Small quantities: According to local regulations. Large quantities: Consult YLSCH Chemical for special advice.
<b>Contaminated packaging</b>	According to local regulations. Waste code number: Please refer to your specific industry
<b>Other information</b>	in the European Waste Catalogue.

## 14. TRANSPORT INFORMATION

### Land transport (ADR/ RID)

<b>ADR class</b>	----	<b>RID class</b>	----
<b>ADR/RID packing group</b>	III	<b>Hazard Identification No.</b>	----
<b>Substance Identification No.</b>	3077	<b>UN number</b>	3077

Environmentally hazard us substance, solid, n.o.s.

**Proper Shipping Name** (Nickel dibutyldithiocarbamate)

**Sea transport (IMDG-code/ IMO)**

<b>Correct technical name</b>	----	<b>IMDG Class</b>	
<b>UN Number</b>	----	<b>Packaging group</b>	
<b>EMS Number</b>	----		
<b>Air transport (ICAO-TI/ IATA-DGR)</b>			
<b>ICAO-TI/IATA-DGR Class</b>	----	<b>UN number</b>	----
<b>Packing group</b>	Environmentally hazardous substance, solid, n.o.s.		
<b>Correct technical name</b>	(Nickel dibutyldithiocarbamate)		

## 15. REGULATORY INFORMATION

<b>Chemical description</b>	Nickel dibutyldithiocarbamate
<b>Labelling according to EC directives</b>	
<b>EC-number</b>	See section 2
<b>Classification based on</b>	Annex-1 to directive 67/548/EEC
<b>R(isk) phrase(s)</b>	R 53 may cause long-term adverse effects in the aquatic environment.
<b>S(afety) phrase(s)</b>	S 60 This material and its container must be disposed of as hazardous waste. S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets
<b>Other information</b>	To be displayed on the label: "EC label".
<b>Wassergefährdungsklasse (WGK)</b>	----

## 16. OTHER INFORMATION

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.