

TurboBeads

Material Safety Data Sheet

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Regulation (EC) no 1907/2006 Art. 31

Section 1 - Product and Company Information

Product Name Carboxy coated TurboBeads
Product No. 1008
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Section 2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
 Irritating to eyes and respiratory system. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact. May cause long-term adverse effects in the aquatic environment.

Section 3 - Composition/Information on Ingredients

<u>Product Name</u>	<u>CAS #</u>	<u>EC No</u>	<u>Annex I Index No</u>	
Carboxy coated TurboBeads	None	None	none	
<u>Ingredient name</u>	<u>Percent</u>	<u>CAS #</u>	<u>EC No</u>	<u>Annex I Index No</u>
Cobalt	<= 3	7440-48-4	231-158-0	027-001-00-9
Symbols: Xn R-Phrases: 42/43-53 May cause sensitization by inhalation and skin contact. May cause long-term adverse effects in the aquatic environment.				
Graphene - like carbon	<= 0.2	None	None	none
Symbols: Xi R-Phrases: 36/37 Irritating to eyes and respiratory system				
Water	<= 97	7732-18-5	231-791-2	none

Section 4 - First aid Measures**AFTER INHALATION**

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give

oxygen.

AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Section 5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water

SPECIAL RISKS

Specific Hazard(s): Contains flammable solid. Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT OF FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6 - Additional Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use.

METHODS FOR CLEANING UP

Avoid raising dust. Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

Directions for Safe Handling: Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Avoid prolonged or repeated exposure.

Do not allow to dry.

STORAGE

Conditions of Storage: Keep container closed. Keep away from heat, sparks, and open flame.

Do not allow to dry.

Section 8 - Exposure Controls / Personal Protection**ENGINEERING CONTROLS**

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

EXPOSURE LIMITS

Country	Source	Type	Value
Poland		NDS	0.05 mg/m3
Poland		NDSCh	0.2 mg/m3
Poland		NDSP	-
USA	ACGIH	TWA	0.02 mg/m3
USA	MSHA Standard-air	TWA	0.1 mg/m3
USA	OSHA.	PEL	8H TWA 0.1 MG (CO) /M3
New Zealand		OEL	
Remarks: check ACGIH TLV			
USA	NIOSH	TWA	0.05 mg/m3

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

Section 9 - Physical and Chemical Properties

Appearance	Physical State: Liquid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	

Bulk Density	N/A
Decomposition Temp.	N/A
Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	N/A

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions to Avoid: Heat. Air.

Materials to Avoid: Strong oxidizing agents, Acetylene, Ammonium nitrate, Bromine pentafluoride, Hydrazinium nitrate
Material readily reacts with acids generating flammable and/or explosive hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Cobalt/cobalt oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

SENSITIZATION

Respiratory: May cause allergic respiratory reaction.

Skin: May cause allergic skin reaction.

SIGNS AND SYMPTOMS OF EXPOSURE

Damage to the eyes. Lung irritation, chest pain, and edema which may be fatal. Overexposure to cobalt compounds may cause nose and throat irritation and an allergic skin rash. If ingested, may cause vomiting, diarrhea, and a sensation of hotness. Excessive inhalation and/or ingestion of cobalt salts may affect the kidneys, lungs, and thyroid. Damage to the kidneys. Exposure can cause:

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

TARGET ORGAN INFORMATION

Kidneys. Eyes. Respiratory system. Skin.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Section 12 - Ecological Information

No data available

Section 13 - Disposal Considerations

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations. Material in the elemental state should be recovered for reuse or recycling.

Section 14 - Transport Information

RID/ADR

Non-hazardous for road transport

IMDG

Non-hazardous for sea transport

IATA

Non-hazardous for air transport

Section 15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xn

R-PHRASES: 36/37-40-42/43-53

Irritating to eyes and respiratory system. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact. May cause long-term adverse effects in the aquatic environment.

S-PHRASES: 22-24-26-36/37-61

Do not breathe dust. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves. Avoid release to the environment. Refer to special instructions/safety data sheets.

Caution: Substance not yet fully tested (EU).

Section 16 - OTHER INFORMATION

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. TurboBeads Llc., shall not be held liable for any damage resulting from handling or from contact with the above product. See general terms and conditions of sale (www.turbobeads.com/T_C.html). Copyright 2008 TurboBeads Llc. License granted to make unlimited paper copies for internal use only.

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