

MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet meets or exceeds the requirements of the Canadian Controlled Product Regulations (WHMIS)

1. Product and Supplier Identification

Product: Fibre, Steel: 65/60 BN (#9994151); ZP305 (#9991426)

Product Use: Steel reinforcement for concrete applications

Manufacturer: Target Products Ltd,

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Abbotsford, BC

Canada, V4X 1H8

Telephone: 1.604.856.7976

24-Hour Emergency Response Telephone for Transport Emergencies ONLY:

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2. Composition

Component	CAS No. EINECS/ELINCS No.	Hazard Symbol	Risks (R-phrases)
Manganese	7439-96-5 231-105-1	-	-
Nickel	7440-02-0 231-111-4	Xn	40-43 (1)
Diisobutyl phthalate	84-69-5 201-553-2	N	50 (1)

(1) For R-phrases in full, see heading 16

3. Hazards Identification

No hazard classification in accordance with directives 67/548/EEC and 1999/45/EC

4. First Aid Measures

Inhalation:

Consult a doctor/medical service if breathing problems develop. Remove the victim into fresh air. If unconscious, maintain adequate airway and respiration.

Skin Contact:

Consult a doctor/medical service if irritation persists. Wash affected area thoroughly with soap and water.

Eye Contact:

Consult a doctor/medical service if irritation persists. Wash affected area thoroughly with water.

Ingestion:

Consult a doctor/medical service if you feel unwell. Do not give anything by mouth to a convulsing or unconscious person.

5. Fire Fighting Measures

Hazardous Combustion Products: Upon combustion CO and CO₂ are formed.

Conditions to Avoid: None

Extinguishing Media: Water spray, alcohol-resistant foam, ABC powder, Carbon dioxide

Fire Fighting Instructions: Solid water jet ineffective as extinguishing medium

6. Accidental Release Measures

Personal Protection: Wear adequate personal protection to prevent inhalation, contact with skin or eyes. See Section 8 for specific recommendations.

Environmental Precautions: Not applicable

Cleanup Procedures: Restrict access to area until completion of cleanup. Pick up the material. Clean contaminated surfaces with an excess of water

7. Handling and Storage

Handling Procedures:

Follow safe work procedures and wear the appropriate personal protective equipment specified in Section 8. The workers must be instructed and trained in the safe work procedures.

Storage:

Store away from incompatible materials such as heat sources, oxidizing agents or acids.

8. Exposure Controls, Personal Protection

Exposure Limit Values:

Manganese						
TLV-TWA	: 0.2		mg/m ³			ppm
TLV-STEL	: -		mg/m ³			ppm
MEL-LTEL	: 0.5		mg/m ³	-		ppm
MEL-STEL	: -		mg/m ³	-		ppm
MAK	: 0.5	E	mg/m ³			ppm
MAC-TGG 8 h	: 1		mg/m ³			
MAC-TGG 15 min.	: 3		mg/m ³			
VME-8 h	: 1	fumées	mg/m ³	-		ppm
VLE-15 min.	: -		mg/m ³	-		ppm
GWBB-8 h	: 0.2		mg/m ³	-		ppm
GWK-15 min.	: -		mg/m ³	-		ppm

Nickel						
TLV-TWA	: 1.5	I	mg/m ³			ppm
TLV-STEL	: -		mg/m ³			ppm
MEL-LTEL	: 0.5		mg/m ³	-		ppm
MEL-STEL	: -		mg/m ³	-		ppm
TRK	: 0.5	E	mg/m ³	-		ppm

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MAC-TGG 8 h	: 1	mg/m3		
VME-8 h	: 1	mg/m3	-	ppm
VLE-15 min.	: -	mg/m3	-	ppm
GWBB-8 h	: 1	mg/m3	-	ppm
GWK-15 min.	: -	mg/m3	-	ppm
Diisobutyl-phthalate				
OES-LTEL	: 5	mg/m3	-	ppm
OES-STEL	: -	mg/m3	-	ppm
MAC-TGG 8 h	: 5	R/10 I	mg/m3	

Sampling methods:

- Manganese (Elements) NIOSH 7300
- Nickel (Elements) NIOSH 7300

Respiratory Protection:

In the event of dust formation, a particulate respirator should be worn. Respirators must be NIOSH approved and properly selected, maintained and used when working with this product. Knowledge of respiratory hazards and respiratory protection is essential to ensure appropriate selection of respirators.

Skin Protection:

Wear clothing to prevent contact with skin.

Eye and Face Protection:

Wear safety glasses to prevent contact with eyes and make immediately available appropriate emergency eyewashing equipment (e.g. portable or plumbed) capable of flushing the eyes for at least 15 minutes.

9. Physical and Chemical Properties

Physical State:	Solid
Odour:	None
Odour Threshold:	N.A.
pH:	N.D.
Vapour Pressure:	N.A.
Solubility in water:	No
Vapour Density:	N.A.
Melting Point:	N.D.
Boiling Point:	N.D.
Freezing Point:	N.D.
Evaporation Rate:	N.A.

10. Stability and Reactivity

Chemical Stability:	This product is stable under normal conditions
Hazardous Polymerization:	Will not occur.
Incompatibility:	Keep away from heat sources, oxidizing agents, acids
Reactivity:	Yes. Reacts with water forming polymerized silicates and calcium oxide.
Hazardous Decomposition Products:	Upon combustion, CO and CO ₂ are formed. Formation of small quantities of nitrous vapors, phosphorous oxides and formation of metallic fumes

11. Toxicological Information

Acute Toxicity

LD50 oral rat	: N.D.	mg/kg
LD50 dermal rat	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LC50 inhalation rat	: N.D.	mg/l/4 h
LC50 inhalation rat	: N.D.	ppm/4 h

Chronic Toxicity

Manganese

Teratogenicity (MAK) : C

Nickel

EC carc. cat. : 3

Carcinogenicity (TLV) : A5

Carcinogenicity (VME) : C3

Carcinogenicity (MAK) : 1

Teratogenicity (MAK) : -

IARC classification : 2B

Routes of exposure: Ingestion, inhalation, eyes and skin

Acute effects/symptoms: No data available

Chronic Effects: Contains traces of a (possible) carcinogenic substance (nickel)

12. Ecological Information

Environmental Toxicity: No data available

Mobility: Volatile organic compounds (VOC): 0%; Insoluble in water; Substance sinks in water. For other physicochemical properties see heading 9

Persistence and degradability:

Biodegradation BOD5	: N.A.	% ThOD
Water	: - No data available	
Soil	: T ½: N.D.	days

Bioaccumulative potential:

log Pow	: N.D.
BCF	: N.D.

Other adverse effects:

WGK : 1 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)

13. Disposal Considerations

Provisions relating to waste: Waste material code (75/442/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 17 04 05 (iron and steel)

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Waste material code (Flanders): 167

Disposal methods: Recycle/reuse

Packaging/Container: Waste material code packaging (75/442/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 01 (paper and cardboard packaging) 15 01 02 (plastic packaging)

Review federal, provincial or state, and local government requirements prior to disposal. Store material for disposal as indicated in Storage Conditions. Disposal by controlled incineration may be acceptable.

14. Transport Information

Classification of the substance in compliance with UN Recommendations

UN number : -
ADR (transport by road)
CLASS : NOT SUBJECT

RID (transport by rail)
CLASS : NOT SUBJECT

ADNR (transport by inland waterways)
CLASS : NOT SUBJECT

IMDG (maritime transport)
CLASS : NOT SUBJECT

ICAO (air transport)
CLASS : NOT SUBJECT

Special precautions in connection with transport: not restricted for any mode of international transport

15. Regulatory Information

Classification according to directives 67/548/EEC and 1999/45/EC: NOT APPLICABLE
Contains nickel. May produce an allergic reaction

16. Other Information

Original Preparation Date: 01 September 2010

Abbreviations Used:

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
(*) = INTERNAL CLASSIFICATION (NFPA)

Exposure limits:

TLV : Threshold Limit Value - ACGIH USA 2004
OES : Occupational Exposure Standards - United Kingdom 2003
MEL : Maximum Exposure Limits - United Kingdom 2003
MAK : Maximale Arbeitsplatzkonzentrationen - Germany 2002

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TRK : Technische Richtkonzentrationen - Germany 2002
MAC : Maximale aanvaarde concentratie - The Netherlands 2004
VME : Valeurs limites de Moyenne d'Exposition - France 1999
VLE : Valeurs limites d'Exposition à court terme - France 1999
GWBB : Grenswaarde beroepsmatige blootstelling - Belgium 2002
GWK : Grenswaarde kortstondige blootstelling - Belgium 2002

EC : Indicative occupational exposure limit values - directive 2000/39/EC

I : Inhalable fraction

T : Total dust

E : Einatembarer Aerosolanteil

R : Respirable fraction

A : Alveolengängiger Aerosolanteil/Alveolar dust

C : Ceiling limit

Chronic toxicity:

K : List of the carcinogenic substances and processes - The Netherlands 2004

Full text of any R-phrases referred to under heading 2:

R40 : Limited evidence of a carcinogenic effect

R43 : May cause sensitisation by skin contact

R50 : Very toxic to aquatic organisms

Disclaimer: This Material Safety Data Sheet was prepared in accordance with criteria and requirements of the Hazardous Products Act and the Controlled Products Regulations using information provided by the manufacturer and other sources including CCINFO (Chemical Information published by the Canadian Centre for Occupational Health and Safety). The information in the Material Safety Data Sheet is offered for your consideration and guidance when exposed to this product. TARGET PRODUCTS LTD. expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this MSDS does not apply to use with any other product or in any other process.

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