



# SAFETY DATA SHEET

Creation Date 24-Nov-2010

Revision Date 23-Mar-2012

Revision Number 2

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### Product Identifier

Product Description: Manganese, powder, -40 mesh  
Cat No. 317440000; 317442500

### Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals  
Uses advised against No Information available

### Details of the supplier of the safety data sheet

#### Company

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

### Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01  
For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300  
CHEMTREC Phone Number, Europe: 001-703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

#### REGULATION (EC) No 1272/2008

Flammable solids.	Category 2
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### Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s) F - Highly flammable  
R-phrases(s) R11 - Highly flammable

### Label Elements

Manganese, powder, -40 mesh

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## SECTION 2. HAZARDS IDENTIFICATION



**Signal Word**

**Warning**

**Hazard Statements**

H228 - Flammable solid

**Precautionary Statements - EU (§28, 1272/2008)**

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

**Other Hazards**

No information available.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Manganese 7439-96-5	EEC No. 231-105-1	>95	7439-96-5	F; R11	Flam. Sol. 2 (H228)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

## SECTION 4. FIRST AID MEASURES

**Description of first aid measures**

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

**Ingestion**

Clean mouth with water. Get medical attention.

**Inhalation**

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.

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**Notes to Physician**

Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Dry chemical.

**Extinguishing media which must not be used for safety reasons**

Water.

**Special hazards arising from the substance or mixture**

Combustible material.

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Sweep up or vacuum up spillage and collect in suitable container for disposal.

**SECTION 7. HANDLING AND STORAGE****Precautions for Safe Handling**

Avoid contact with skin and eyes. Do not breathe dust. Do not breathe vapors or spray mist. Use explosion-proof equipment. Use only non-sparking tools.

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat and sources of ignition. Keep under nitrogen.

**Specific End Uses**

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure limits

**Component**  
Manganese

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 1.5 mg/m <sup>3</sup> 15 min TWA: 0.5 mg/m <sup>3</sup> 8 hr	VME: 1 mg/m <sup>3</sup> 8 heures. Mn fume	TWA: 0.2 mg/m <sup>3</sup> 8 uren	VLA-ED: 0.2 mg/m <sup>3</sup> 8 horas

**Component**  
Manganese

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 0.2 mg/m <sup>3</sup> 8 Stunden. inhalable fraction MAK: 0.02 mg/m <sup>3</sup> 8 Stunden. respirable fraction Peak: 1.6 mg/m <sup>3</sup> Peak: 0.16 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup> 8 Stunden. inhalable fraction	TWA: 0.2 mg/m <sup>3</sup> 8 horas		TWA: 0.2 mg/m <sup>3</sup> 8 tunteina TWA: 0.1 mg/m <sup>3</sup> 8 tunteina

**Component**  
Manganese

Austria	Denmark	Switzerland	Poland	Norway
STEL: 2 mg/m <sup>3</sup> 15 Minuten TWA: 0.5 mg/m <sup>3</sup> 8 Stunden	TWA: 0.2 mg/m <sup>3</sup> 8 timer TWA: 0.1 mg/m <sup>3</sup> 8 timer	MAK: 0.5 mg/m <sup>3</sup> 8 Stunden	NDS: 0.3 mg/m <sup>3</sup> 8 godzinach	TWA: 1 mg/m <sup>3</sup> 8 timer TWA: 0.1 mg/m <sup>3</sup> 8 timer STEL: 3 ppm 15 minutter. inhalable fraction STEL: 0.3 mg/m <sup>3</sup> 15 minutter. respirable fraction

**Component**  
Manganese

Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
	TWA: 0.5 mg/m <sup>3</sup> 8 satima.	TWA: 1 mg/m <sup>3</sup> 8 hr. Mn fume TWA: 0.2 mg/m <sup>3</sup> 8 hr. STEL: 3 mg/m <sup>3</sup> 15 min		TWA: 1 mg/m <sup>3</sup> 8 hodinách. Ceiling: 2 mg/m <sup>3</sup>

**Component**  
Manganese

Estonia	Gibraltar	Greece	Hungary	Iceland
TWA: 1 mg/m <sup>3</sup> 8 tundides. total dust TWA: 0.5 mg/m <sup>3</sup> 8 tundides. respirable dust			STEL: 20 mg/m <sup>3</sup> 15 percekben. TWA: 5 mg/m <sup>3</sup> 8 órában.	STEL: 5 mg/m <sup>3</sup> powder and total dust TWA: 2.5 mg/m <sup>3</sup> 8 klukkustundum. total dust and powder TWA: 1.0 mg/m <sup>3</sup> 8 klukkustundum. respirable dust TWA: 1 mg/m <sup>3</sup> 8 klukkustundum. Mn fume Ceiling: 5 mg/m <sup>3</sup> total dust and powder Ceiling: 2 mg/m <sup>3</sup> respirable dust Ceiling: 2 mg/m <sup>3</sup> fume

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**Component**  
Manganese

Latvia	Lithuania	Luxembourg	Malta	Romania
	TWA: 1 mg/m <sup>3</sup> inhalable fraction TWA: 0.5 mg/m <sup>3</sup> respirable fraction			TWA: 0.50 mg/m <sup>3</sup> 8 ore STEL: 3 mg/m <sup>3</sup> 15 minute

**Component**  
Manganese

Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
	0.5	TWA: 0.5 mg/m <sup>3</sup> 8 urah inhalable fraction STEL: 2 mg/m <sup>3</sup> 15 minutah inhalable fraction	LLV: 0.2 mg/m <sup>3</sup> 8 timmar. total dust LLV: 0.1 mg/m <sup>3</sup> 8 timmar. respirable dust	

**Biological limit values**

**Component**  
Manganese

European Union	United Kingdom	France	Spain	Germany
				Manganese: 20 µg/L whole blood end of shift Manganese: 20 µg/L whole blood end of several shifts for long- term exposures

**Component**  
Manganese

Austria	Switzerland	Poland	Norway	Ireland
	Manganese: 20 µg/L whole blood end of shift, and after several shifts (for long-term exposures)			

**Component**  
Manganese

Bulgaria	Gibraltar	Latvia	Luxembourg	Romania
				Manganese: 10 µg/L urine end of shift

**Derived No Effect Level (DNEL)**

No information available.

**Predicted No Effect Concentration (PNEC)**

No information available.

**Exposure controls**

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Eye Protection**

Goggles

**Hand Protection**

Protective gloves

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

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Environmental exposure controls No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State	Powder, Solid
Appearance	Dark brown
pH	No information available.
Vapor Pressure	No information available.
Boiling Point/Range	1900°C / 3452°F
Melting Point/Range	1260°C / 2300°F
Flash Point	No information available.
Autoignition Temperature	No information available.
Water Solubility	Insoluble
Molecular Formula	Mn
Molecular Weight	54.94

**SECTION 10. STABILITY AND REACTIVITY**ReactivityChemical Stability

Moisture sensitive.

Possibility of Hazardous Reactions

<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions .</b>	No information available.

Conditions to Avoid

Incompatible products, Exposure to moisture.

Incompatible Materials

Acids, Bases, Halogens.

Hazardous Decomposition Products

None under normal use conditions

**SECTION 11. TOXICOLOGICAL INFORMATION**Information on Toxicological EffectsAcute Toxicity

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Information

**Component**  
Manganese

LD50 Oral	LD50 Dermal	LC50 Inhalation
9 g/kg ( Rat )		

### Chronic Toxicity

#### Carcinogenicity

There are no known carcinogenic chemicals in this product

#### Sensitization

No information available.

#### Mutagenic Effects

No information available.

#### Reproductive Effects

No information available.

#### Developmental Effects

No information available.

#### Target Organs

No information available.

#### Other Adverse Effects

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

#### Endocrine Disruptor Information

None known

## SECTION 12. ECOLOGICAL INFORMATION

### Toxicity

#### Ecotoxicity effects

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

#### Persistence and degradability

No information available

#### Bioaccumulative potential

No information available.

#### Mobility in soil

No information available.

#### Results of PBT and vPvB assessment

#### Other adverse effects

No information available

## SECTION 13. DISPOSAL CONSIDERATIONS

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from Residues / Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging** Empty containers should be taken to local recyclers for disposal

## SECTION 14. TRANSPORT INFORMATION

### IMDG/IMO

**UN-No** 3089  
**Hazard Class** 4.1  
**Packing Group** III  
**Proper Shipping Name** METAL POWDER, FLAMMABLE, N.O.S.

### ADR

**UN-No** 3089  
**Hazard Class** 4.1  
**Packing Group** III  
**Proper Shipping Name** METAL POWDER, FLAMMABLE, N.O.S.

### IATA

**UN-No** 3089  
**Hazard Class** 4.1  
**Packing Group** III  
**Proper Shipping Name** METAL POWDER, FLAMMABLE, N.O.S.

## SECTION 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

### International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Manganese	231-105-1	-		X	X	-	X	-	X	X	X

### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List



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R11 - Highly flammable

**Revision Date**

23-Mar-2012

**Revision Summary**

Not applicable

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**