



# PRODUCT INFORMATION SHEET

**MATERION**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Trade name or designation of the mixture** Iron Manganese Products

**Registration number** -

**Synonyms** None.

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

**Identified uses** Not available.

**Uses advised against** None known.

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

#### Supplier

**Company name** Materion Electronic Materials

**Address** 6070 Parkland Boulevard  
Mayfield Heights, OH 44124  
United States

#### Division

**Telephone** 1.216.383.4019

**e-mail** ehs@materion.com

**Contact person** Theodore Knudson

**1.4. Emergency telephone number** See Section 16.

**Document number** 296

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Iron, Manganese

**Hazard pictograms** None.

**Signal word** None.

**Hazard statements** The products are classified as articles and, as such, do not present a physical or health hazard in the present form. If the products are processed or handled in ways that generate particles (dust, fume, particles and/or powder), a potential health hazard could exist and risk management measures must be taken to minimize risk.

#### Precautionary statements

**Prevention** Observe good industrial hygiene practices.

**Response** Wash hands after handling.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Supplemental label information** For further information, please contact the Product Stewardship Department at +1.216.383.4019.

### 2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

## General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Iron	1 - 99	7439-89-6 231-096-4	-	-	
<b>Classification:</b> -					
Manganese	1 - 99	7439-96-5 231-105-1	-	-	#
<b>Classification:</b> -					

## List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Union workplace exposure limit(s).

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## SECTION 4: First aid measures

### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 4.1. Description of first aid measures

#### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

#### Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

#### Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

#### Ingestion

Rinse mouth. Get medical attention if symptoms occur.

### 4.2. Most important symptoms and effects, both acute and delayed

None known.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### General fire hazards

No unusual fire or explosion hazards noted.

### 5.1. Extinguishing media

#### Suitable extinguishing media

Powder. Dry sand.

#### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

### 5.3. Advice for firefighters

#### Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### Special firefighting procedures

Move containers from fire area if you can do so without risk.

### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Wear appropriate personal protective equipment.

#### For emergency responders

Keep unnecessary personnel away. For personal protection, see section 8 of the Product Information Sheet.

### 6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk. Following product recovery, flush area with water. The product is insoluble in water.

**6.4. Reference to other sections**

For personal protection, see section 8 of the Product Information Sheet. For waste disposal, see section 13 of the Product Information Sheet.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid prolonged exposure. Observe good industrial hygiene practices.

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

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the Product Information Sheet).

**7.3. Specific end use(s)**

Observe industrial sector guidance on best practices.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits****Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001, as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	MAK	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.
	STEL	1,6 mg/m <sup>3</sup>	Inhalable fraction.
		0,16 mg/m <sup>3</sup>	Respirable fraction.

**Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 - Chemical agents, as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,05 mg/m <sup>3</sup>	Respirable fraction.

**Bulgaria. OELs. Ordinance No 13 on protection of workers against risks of exposure to chemical agents at work, as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Croatia. OELs (GVI). Regulation on Protection of Workers against Exposure to Dangerous Chemicals at Work, OELs and Biological Limit Values, Annex I (NN 91/2018), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	MAC	0,2 mg/m <sup>3</sup>	Total dust.
		0,05 mg/m <sup>3</sup>	Respirable dust.

**Cyprus. OELs. Occupational Exposure Limit Values of Chemicals at Work (Safety and Health at Work (Chem. Agents) Reg., Ann. 1, R.A.A. 268/2001, as amended)**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Czech Republic. Occupational exposure limit values of chemicals at work (Decree on protection of health at work, 361/2007, Annex 2, Part A & Annex 3, Part A, as amended)**

Components	Type	Value	Form
Iron (CAS 7439-89-6)	TWA	10 mg/m <sup>3</sup>	
Manganese (CAS 7439-96-5)	Ceiling	0,4 mg/m <sup>3</sup>	Aerosol, inhalable.
	TWA	0,2 mg/m <sup>3</sup>	Aerosol, inhalable.

**Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TLV	0,2 mg/m <sup>3</sup>	Inhalable fume.
		0,2 mg/m <sup>3</sup>	Inhalable dust.
		0,05 mg/m <sup>3</sup>	Respirable fume.

**Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2**

Components	Type	Value	Form
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0,05 mg/m3 Respirable dust.

**Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	TWA	0,2 mg/m3	Total dust, respiratory fraction
		0,05 mg/m3	Fine dust, respiratory fraction

**Finland. HTP-arvot, App 3., Binding Limit Values, Social Affairs and Ministry of Health**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	TWA	0,2 mg/m3	Inhalable dust.
		0,02 mg/m3	Respirable.

**France. OELs. Indicative Occupational Exposure Limits as Prescribed by Order of 30 June 2004, as amended**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	VME	0,2 mg/m3	Inhalable fraction.
		0,05 mg/m3	Respirable fraction.

**France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	VME	0,2 mg/m3	Inhalable fraction.
		0,05 mg/m3	Respirable fraction.

**Regulatory status:** Regulatory indicative (VRI)

**Regulatory status:** Regulatory indicative (VRI)

**Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	TWA	0,2 mg/m3	Inhalable fraction.
		0,02 mg/m3	Respirable fraction.

**Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	AGW	0,2 mg/m3	Inhalable fraction.
		0,02 mg/m3	Respirable fraction.

**Greece. OELs, Presidential Decree No. 307/1986, as amended**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	TWA	0,2 mg/m3	Inhalable fraction.
		0,05 mg/m3	Respirable fraction.

**Hungary. OELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 1&2, as amended**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	TWA	0,2 mg/m3	
		0,05 mg/m3	Respirable.

**Iceland. OELs. Regulation 390/2009 on Pollution Limits and Measures to Reduce Pollution at the Workplace, as amended**

Components	Type	Value	Form
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Manganese (CAS 7439-96-5)	STEL	5 mg/m3	Total dust.
	TWA	2,5 mg/m3	Total dust.

**Iceland. OELs. Regulation 390/2009 on Pollution Limits and Measures to Reduce Pollution at the Workplace, as amended**

Components	Type	Value	Form
		1 mg/m <sup>3</sup>	Respirable dust.
		0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Ireland. OELVs, Schedules 1 & 2, Code of Practice for Chemical Agents and Carcinogens Regulations**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	STEL	3 mg/m <sup>3</sup>	Inhalable fraction and fume
	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,2 mg/m <sup>3</sup>	Inhalable fraction and fume
	0,05 mg/m <sup>3</sup>	Respirable fraction.	
	0,02 mg/m <sup>3</sup>	Respirable fraction and fume.	

**Italy. OELs (Legislative Decree n.81, 9 April 2008), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,1 mg/m <sup>3</sup>	Inhalable fraction.
		0,02 mg/m <sup>3</sup>	Respirable fraction.

**Latvia. OELs. Occupational Exposure Limits of Chemical Substances at Workplace (Reg. No. 325/ 2007, L.V. 80, Annex 1), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,1 mg/m <sup>3</sup>	Welding fume.
		0,05 mg/m <sup>3</sup>	

**Lithuania. OELs. Occupational Exposure Limit Values for Chemical Substances (Hygiene Norm HN 23:2011; Order No. V-824/A1-389), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Luxembourg. OELs. Binding Occupational Exposure Limit Values (Annex I), G.D.R. of 14 November 2016, OJ Memorial A, n ° 235/2016, as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Alveolar fraction

**Malta. OELs. Protection of Health and Safety of Workers from Risks related to Chemical Agents at Work (L.N 227/2003 Schedules I and V), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Netherlands. OELs per Annex XIII of Working Conditions Regulation (Staatscourant no. 252, 29 December 2006), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	STEL	0,05 mg/m <sup>3</sup>	Respirable fraction.
	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.

**Norway. Regulation No. 1358 on Measures and Limit Values for Physical and Chemical Factors in Work Environment and Infection Groups for Biological Factors, as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TLV	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018, Annex 1)**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796-2014)**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,1 mg/m <sup>3</sup>	Inhalable fraction.
		0,02 mg/m <sup>3</sup>	Respirable fraction.

**Romania. OELs. Limit Values of Chemical Agents at Workplace (Regulation 1.218/2006, M.O 845, Annex 1, 3&4, as amended)**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Gaseous and vapor, inhalable fraction
		0,05 mg/m <sup>3</sup>	Gaseous and vapor, respirable fraction

**Slovakia. OELs. Maximum permissible exposure limits for chemical factors in workplace air (Regulation No 355/2006, Annex 1, Table 1, as amended)**

Components	Type	Value	Form
Iron (CAS 7439-89-6)	TWA	6 mg/m <sup>3</sup>	
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Ann. I 100/2001), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	KTV	1,6 mg/m <sup>3</sup>	Inhalable fraction.
		0,4 mg/m <sup>3</sup>	Respirable fraction.

**Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Annex I), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Spain. OELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 1-Valores Límites Ambientales (VLAs)**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Sweden. OELs (Annex 1). Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1), as amended**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable dust.
		0,05 mg/m <sup>3</sup>	Respirable dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,5 mg/m <sup>3</sup>	Inhalable fraction.

**UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU**

Components	Type	Value	Form
Manganese (CAS 7439-96-5)	TWA	0,2 mg/m <sup>3</sup>	Inhalable fraction.
		0,05 mg/m <sup>3</sup>	Respirable fraction.

**Biological limit values****Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle BAT-Werte**

Components	Value	Determinant	Specimen	Sampling Time
Manganese (CAS 7439-96-5)	20 µg/l	Mangan	Blood	*

\* - For sampling details, please see the source document.

**Recommended monitoring procedures** Follow standard monitoring procedures.

**Derived no effect levels (DNELs)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

**8.2. Exposure controls**

**Appropriate engineering controls** Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**General information** Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin protection**

- **Hand protection** Wear gloves to prevent metal cuts and skin abrasions during handling.

- **Other** Wear suitable protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Environmental exposure controls** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Colour</b>	Not available.
<b>Odour</b>	None.
<b>Odour threshold</b>	Not applicable.
<b>Melting point/freezing point</b>	1246 °C (2274,8 °F) estimated

**Boiling point or initial boiling point and boiling range** 2061 °C (3741,8 °F) estimated

**Flammability** Not applicable.

**Upper/lower flammability or explosive limits**

**Explosive limit - lower (%)** Not applicable.

**Explosive limit - lower (%) temperature** Not applicable.

**Explosive limit – upper (%)** Not applicable.

**Explosive limit - upper (%) temperature** Not applicable.

**Flash point** Not applicable.

**Auto-ignition temperature** 450 °C (842 °F) estimated

**Decomposition temperature** Not applicable.

**pH** Not applicable.

**Kinematic viscosity** Not applicable.

**Solubility**

**Solubility (water)** Insoluble

**Partition coefficient (n-octanol/water) (log value)** Not applicable.

**Vapour pressure** -0,01 hPa estimated

**Density and/or relative density**

**Density** 7,30 g/cm<sup>3</sup> estimated

**Relative density** Not applicable.

**Relative density temperature** Not applicable.

**Vapour density** Not applicable.

**Particle characteristics** Not available.

**9.2. Other information**

**9.2.1. Information with regard to physical hazard classes** No relevant additional information available.

**9.2.2. Other safety characteristics**

**Evaporation rate** Not applicable.

**Specific gravity** 7,3 estimated

**Viscosity** Not applicable.

## SECTION 10: Stability and reactivity

**10.1. Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**10.2. Chemical stability** Material is stable under normal conditions.

**10.3. Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid** Contact with incompatible materials.

**10.5. Incompatible materials** Strong oxidising agents.

**10.6. Hazardous decomposition products** No hazardous decomposition products are known.

## SECTION 11: Toxicological information

**General information** Not applicable.

**Information on likely routes of exposure**

**Inhalation** Not likely, due to the form of the product.

**Skin contact** Not likely, due to the form of the product.

**Eye contact** Not likely, due to the form of the product.

**Ingestion** Not likely, due to the form of the product.

**Symptoms** None known.



### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

<b>Acute toxicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Skin corrosion/irritation</b>	Not likely, due to the form of the product.
<b>Serious eye damage/eye irritation</b>	Not likely, due to the form of the product.
<b>Respiratory sensitisation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Skin sensitisation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Carcinogenicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible.
<b>Mixture versus substance information</b>	No information available.

### 11.2. Information on other hazards

<b>Endocrine disrupting properties</b>	This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.
<b>Other information</b>	Not available.

## SECTION 12: Ecological information

<b>12.1. Toxicity</b>	Due to partial or complete lack of data the classification for hazardous to the aquatic environment, is not possible.
<b>12.2. Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.
<b>12.3. Bioaccumulative potential</b>	No data available.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	No data available.
<b>12.5. Results of PBT and vPvB assessment</b>	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.
<b>12.6. Endocrine disrupting properties</b>	This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.
<b>12.7. Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EU waste code</b>	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Disposal methods/information</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
<b>Special precautions</b>	Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

<b>14.1. UN number</b>	Not regulated as dangerous goods.
<b>14.2. UN proper shipping name</b>	Not regulated as dangerous goods.
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	Not assigned.
<b>Subsidiary risk</b>	-
<b>Hazard No. (ADR)</b>	Not assigned.
<b>Tunnel restriction code</b>	Not assigned.
<b>14.4. Packing group</b>	-
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not assigned.

### RID

<b>14.1. UN number</b>	Not regulated as dangerous goods.
<b>14.2. UN proper shipping name</b>	Not regulated as dangerous goods.
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	Not assigned.
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	-
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not assigned.

### ADN

<b>14.1. UN number</b>	Not regulated as dangerous goods.
<b>14.2. UN proper shipping name</b>	Not regulated as dangerous goods.
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	Not assigned.
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	-
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not assigned.

### IATA

<b>14.1. UN number</b>	Not regulated as dangerous goods.
<b>14.2. UN proper shipping name</b>	Not regulated as dangerous goods.
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	Not assigned.
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	-
<b>14.5. Environmental hazards</b>	No.
<b>14.6. Special precautions for user</b>	Not assigned.

### IMDG

<b>14.1. UN number</b>	Not regulated as dangerous goods.
<b>14.2. UN proper shipping name</b>	Not regulated as dangerous goods.
<b>14.3. Transport hazard class(es)</b>	
<b>Class</b>	Not assigned.
<b>Subsidiary risk</b>	-
<b>14.4. Packing group</b>	-
<b>14.5. Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	Not assigned.
<b>14.6. Special precautions for user</b>	Not assigned.

## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended - Conditions of restriction given for the associated entry number should be considered**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

**Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex I, as amended**

Not listed.

**Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex II, as amended**

Not listed.

#### Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.

#### National regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

#### France regulations

##### France INRS Table of Occupational Diseases

Iron (CAS 7439-89-6)

Affections consécutives à l'inhalation de poussières minérales ou de fumées, contenant des particules de fer ou d'oxydes de fer 44  
Affections consécutives au travail au fond dans les mines de fer 44 bis

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

#### List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization.

IATA: International Air Transport Association.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.

IMDG: International Maritime Dangerous Goods.

MAC: Maximum Allowed Concentration.  
MARPOL: International Convention for the Prevention of Pollution from Ships.  
PBT: Persistent, bioaccumulative and toxic.  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.  
STEL: Short term exposure limit.  
TLV: Threshold Limit Value.  
TWA: Time Weighted Average.  
VLE: Exposure Limit Value.  
VME: Exposure Average Value.  
vPvB: Very persistent and very bioaccumulative.

**References**

Not available.

**Information on evaluation method leading to the classification of mixture**

The classification for health and environmental hazards is derived by a combination of calculator methods and test data, if available.

**Full text of any statements, which are not written out in full under sections 2 to 15**

None.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.

**Training information**

Follow training instructions when handling this material.

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