



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

- 1.1 Product identifier:** NITRAMAN-LUQSA
- Other means of identification:**  
Not relevant
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses (Professional users): Fertilizer  
For Professional users only.  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**  
LÉRIDA UNIÓN QUÍMICA, S.A. (LUQSA)  
Afueras, s/n  
25173 Sudanel - Lleida - España  
Phone: 973258256  
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- 1.4 Emergency telephone number:** +34 973 258 256 (Solo disponible en horario de oficina; Lunes-Viernes; 09:00-18:00h; Horario de oficina agosto: Lunes-Viernes; 07:00-15:00h)

## SECTION 2: HAZARDS IDENTIFICATION \*\*

- 2.1 Classification of the substance or mixture:**
- CLP Regulation (EC) No 1272/2008:**  
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.  
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302  
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412  
Eye Dam. 1: Serious eye damage, Category 1, H318  
Skin Corr. 1C: Skin corrosion, Category 1C, H314  
STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2 (Inhalation), H373
- 2.2 Label elements:**
- CLP Regulation (EC) No 1272/2008:**  
Danger
- 
- Hazard statements:**  
H302 - Harmful if swallowed.  
H314 - Causes severe skin burns and eye damage.  
H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation).  
H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements:**  
P264: Wash thoroughly after handling.  
P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.  
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a poison center/doctor.  
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.
- Substances that contribute to the classification**  
Manganese dinitrate
- 2.3 Other hazards:**

\*\* Changes with regards to the previous version

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**SECTION 2: HAZARDS IDENTIFICATION \*\* (continued)**

Product does not meet PBT/vPvB criteria  
Endocrine-disrupting properties: The product does not meet the criteria.

\*\* Changes with regards to the previous version

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance:**

Not relevant

**3.2 Mixture:**

**Chemical description:** Mixture composed of inorganic substances

**Components:**

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 10377-66-9 EC: 233-828-8 Index: Not relevant REACH: 01-2119487993-17-XXXX	<b>Manganese dinitrate<sup>(1)</sup></b> Self-classified	25 - <50%
	Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Ox. Sol. 2: H272; Skin Corr. 1C: H314; STOT RE 2: H373 - Danger	
CAS: 124-38-9 EC: 204-696-9 Index: Not relevant REACH: Not relevant	<b>Carbon dioxide<sup>(2)</sup></b> Self-classified	10 - <25%
	Regulation 1272/2008 Press. Gas: H280 - Warning	
CAS: 598-62-9 EC: 209-942-9 Index: Not relevant REACH: 01-2119442695-32-XXXX	<b>Manganese carbonate<sup>(2)</sup></b> Not classified	<1%
	Regulation 1272/2008	

<sup>(1)</sup> Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

<sup>(2)</sup> Substance with a Union workplace exposure limit

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity	Genus
Manganese dinitrate CAS: 10377-66-9 EC: 233-828-8	LD50 oral	500 mg/kg
	LD50 dermal	Not relevant
	LC50 inhalation vapour	Not relevant

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures:**

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

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#### SECTION 4: FIRST AID MEASURES (continued)

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and also risk damage to the respiratory system through inhalation. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

**4.2 Most important symptoms and effects, both acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed:**

Not relevant

#### SECTION 5: FIREFIGHTING MEASURES

**5.1 Extinguishing media:**

**Suitable extinguishing media:**

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

**Unsuitable extinguishing media:**

Non-applicable

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

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Advice for firefighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EEC.

**Additional provisions:**

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:**

**For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**For emergency responders:**

Wear protective equipment. Keep unprotected persons away. See section 8.

**6.2 Environmental precautions:**

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

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

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)**

**6.4 Reference to other sections:**

See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling:**

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

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

A.- Specific storage requirements

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

Maximum time: 24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

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

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
	IOELV (8h)		
Manganese dinitrate CAS: 10377-66-9    EC: 233-828-8	IOELV (STEL)		0,05 mg/m <sup>3</sup>
Carbon dioxide CAS: 124-38-9    EC: 204-696-9	IOELV (8h)	5000 ppm	9000 mg/m <sup>3</sup>
	IOELV (STEL)		
Manganese carbonate CAS: 598-62-9    EC: 209-942-9	IOELV (8h)		0,05 mg/m <sup>3</sup>
	IOELV (STEL)		

**DNEL (Workers):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Manganese dinitrate CAS: 10377-66-9 EC: 233-828-8	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,004 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,2 mg/m <sup>3</sup>	Not relevant
Manganese carbonate CAS: 598-62-9 EC: 209-942-9	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,004 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,2 mg/m <sup>3</sup>	Not relevant

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

**DNEL (General population):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Manganese dinitrate CAS: 10377-66-9 EC: 233-828-8	Oral	3 mg/kg	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,002 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,043 mg/m <sup>3</sup>	Not relevant
Manganese carbonate CAS: 598-62-9 EC: 209-942-9	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,002 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,043 mg/m <sup>3</sup>	Not relevant

**PNEC:**

Identification				
Manganese dinitrate CAS: 10377-66-9 EC: 233-828-8	STP	56 mg/L	Fresh water	0,036 mg/L
	Soil	25,1 mg/kg	Marine water	0 mg/L
	Intermittent	0,104 mg/L	Sediment (Fresh water)	0,011 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,001 mg/kg
Manganese carbonate CAS: 598-62-9 EC: 209-942-9	STP	100 mg/L	Fresh water	0,008 mg/L
	Soil	8,15 mg/kg	Marine water	0,001 mg/L
	Intermittent	0,011 mg/L	Sediment (Fresh water)	8,18 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0,81 mg/kg



**8.2 Exposure controls:**

A.- Individual protection measures, such as personal protective equipment



In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours (Filter type: B)		EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.4 mm)		EN ISO 21420:2020	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield		EN ISO 16321-1:2022 + EN ISO 16321-3:2022 EN ISO 18526-(1,2,3,4):2020 EN ISO 18526-(1,2,3,4):2020 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	<b>CE</b> <b>CAT III</b>	EN 13034:2005+A1:2009 EN ISO 18526-(1,2,3,4):2020 EN ISO 13982-1:2004/A1:2010 ISO 6529:2013 EN ISO 6530:2005 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	<b>CE</b> <b>CAT III</b>	EN ISO 20345:2022 EN 13832-1:2018	Replace boots at any sign of deterioration.

**F.- Additional emergency measures**

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

**Environmental exposure controls:**

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

**Volatile organic compounds:**

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m <sup>3</sup> (0 g/L)
Average carbon number:	Not relevant
Average molecular weight:	Not relevant

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Colour:	Black, Brown
Odour:	Odourless
Odour threshold:	Not relevant *

**Volatility:**

Boiling point at atmospheric pressure:	100 °C
Vapour pressure at 20 °C:	2350 Pa
Vapour pressure at 50 °C:	12381,01 Pa (12,38 kPa)
Evaporation rate at 20 °C:	Not relevant *

**Product description:**

Density at 20 °C:	1411,5 kg/m <sup>3</sup>
Relative density at 20 °C:	1,5 - 1,7
Dynamic viscosity at 20 °C:	2,32 mPa·s

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

Kinematic viscosity at 20 °C:	1,65 mm <sup>2</sup> /s
Kinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	2 - 3 (at 100 %)
Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *
<b>Flammability:</b>	
Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	Not relevant *
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *
<b>Particle characteristics:</b>	
Median equivalent diameter:	Not relevant *

**9.2 Other information:**

**Information with regard to physical hazard classes:**

Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *

**Other safety characteristics:**

Surface tension at 20 °C:	Not relevant *
Refraction index:	Not relevant *

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

**10.2 Chemical stability:**

Chemically stable under the indicated conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Precaution	Precaution	Precaution	Precaution	Not applicable

**10.5 Incompatible materials:**

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## SECTION 10: STABILITY AND REACTIVITY (continued)

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Precaution	Precaution	Avoid alkalis or strong bases

### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: Mixture based on inorganic substances.

## SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

#### Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

#### A- Ingestion (acute effect):

- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

#### B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

#### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

#### D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.  
IARC: Not relevant
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

#### F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

#### G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

#### H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

#### Other information:

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### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Not relevant

#### Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	500 mg/kg	
Manganese dinitrate	LD50 dermal		Rat
CAS: 10377-66-9	LD50 inhalation dust		
EC: 233-828-8			

#### 11.2 Information on other hazards:

##### Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

##### Other information

Not relevant

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Harmful to aquatic life with long lasting effects.

#### 12.1 Toxicity:

##### Acute toxicity:

Identification	Concentration		Species	Genus
	LC50	50 mg/L (96 h)		
Manganese dinitrate	EC50	Not relevant	Salmo trutta	Fish
CAS: 10377-66-9	EC50	61 mg/L (72 h)	Desmodemus subspicatus	Algae
EC: 233-828-8				

#### 12.2 Persistence and degradability:

Not relevant

#### 12.3 Bioaccumulative potential:

Not relevant

#### 12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Koc	Not relevant	Henry	Not relevant
Carbon dioxide	Conclusion	Not relevant <td>Dry soil</td> <td>Not relevant</td>	Dry soil	Not relevant
CAS: 124-38-9	Surface tension	5,7E-4 N/m (25 °C)	Moist soil	Not relevant
EC: 204-696-9				

#### 12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

#### 12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

#### 12.7 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
06 10 02*	wastes containing hazardous substances	Hazardous

##### Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP8 Corrosive



### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

#### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

#### Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

### SECTION 14: TRANSPORT INFORMATION

#### Transport of dangerous goods by land:

With regard to ADR 2025 and RID 2025:



<b>14.1 UN number or ID number:</b>	UN1760
<b>14.2 UN proper shipping name:</b>	CORROSIVE LIQUID, N.O.S. (Manganese dinitrate)
<b>14.3 Transport hazard class(es):</b>	8
Labels:	8
<b>14.4 Packing group:</b>	III
<b>14.5 Environmental hazards:</b>	No
<b>14.6 Special precautions for user</b>	
Special regulations:	274
Tunnel restriction code:	E
Physico-Chemical properties:	see section 9
Limited quantities:	5 L
<b>14.7 Maritime transport in bulk according to IMO instruments:</b>	Not relevant

#### Transport of dangerous goods by sea:

With regard to IMDG 42-24:



<b>14.1 UN number or ID number:</b>	UN1760
<b>14.2 UN proper shipping name:</b>	CORROSIVE LIQUID, N.O.S. (Manganese dinitrate)
<b>14.3 Transport hazard class(es):</b>	8
Labels:	8
<b>14.4 Packing group:</b>	III
<b>14.5 Marine pollutant:</b>	No
<b>14.6 Special precautions for user</b>	
Special regulations:	274, 223
EmS Codes:	F-A, S-B
Physico-Chemical properties:	see section 9
Limited quantities:	5 L
Segregation group:	Not relevant
<b>14.7 Maritime transport in bulk according to IMO instruments:</b>	Not relevant

#### Transport of dangerous goods by air:

With regard to IATA/ICAO 2026:



**SECTION 14: TRANSPORT INFORMATION (continued)**



<b>14.1 UN number or ID number:</b>	UN1760
<b>14.2 UN proper shipping name:</b>	CORROSIVE LIQUID, N.O.S. (Manganese dinitrate)
<b>14.3 Transport hazard class(es):</b>	8
Labels:	8
<b>14.4 Packing group:</b>	III
<b>14.5 Environmental hazards:</b>	No
<b>14.6 Special precautions for user</b>	
Physico-Chemical properties:	see section 9
<b>14.7 Maritime transport in bulk according to IMO instruments:</b>	Not relevant

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

- Article 95, REGULATION (EU) No 528/2012: *Carbon dioxide (124-38-9) - PT: (NA)*
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

**Seveso III:**

Not relevant

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):**

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

**Other legislation:**

The product could be affected by sectorial legislation

Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products.

**15.2 Chemical safety assessment:**

The supplier has not carried out evaluation of chemical safety.

**SECTION 16: OTHER INFORMATION**

**Legislation related to safety data sheets:**

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

**Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:**

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Precautionary statements

**Texts of the legislative phrases mentioned in section 2:**

- H318: Causes serious eye damage.
- H412: Harmful to aquatic life with long lasting effects.
- H373: May cause damage to organs through prolonged or repeated exposure (Inhalation).
- H302: Harmful if swallowed.
- H314: Causes severe skin burns and eye damage.

**Texts of the legislative phrases mentioned in section 3:**



**SECTION 16: OTHER INFORMATION (continued)**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**CLP Regulation (EC) No 1272/2008:**

Acute Tox. 4: H302 - Harmful if swallowed.

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage.

Ox. Sol. 2: H272 - May intensify fire, oxidiser.

Press. Gas: H280 - Contains gas under pressure, may explode if heated.

Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation).

**Classification procedure:**

Eye Dam. 1: Calculation method

Aquatic Chronic 3: Calculation method

STOT RE 2: Calculation method

Acute Tox. 4: Calculation method

Skin Corr. 1C: Calculation method

**Advice related to training:**

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

**Abbreviations and acronyms:**

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -