SAFETY DATA SHEET
(in accordance with NZ EPA Regulations)

G0011-coda-Mn-L

Version: 3
Revision date: 26/10/2021
Next review date: 26/10/2026

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: coda-Mn-L
Product Code: G0011

1.2 Relevant identified uses of the mixture and uses advised against.

Agriculture – for professional use only.

Uses advised against:
Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **Sustainable Agro Solutions, S.A.U.**
Address: Ctra. N-240, Km.110
City: Almacelles
Province: Lleida
Telephone: 973 74 04 00
Fax: 973 74 14 89
E-mail: info@sas-agri.com
Web: www.sas-agri.com

1.4 Distributed by:

Company: **Seed & Field Services (SI) Ltd.**
Address: 17 Railway Terrace East
City: Rakaia
Country: New Zealand
Telephone: +64 3 302 7317

1.5 Emergency telephone number:
National Poisons Center (New Zealand): 0800 POISON (0800 764 766)

SECTION 2: HAZARDS IDENTIFICATION.

Classified as hazardous according to the criteria of the Hazardous Substances (Hazard Classification) Notice 2020 – HSR002571 – Fertilisers (Subsidiary Hazard) Group Standard 2020.

Classified as dangerous goods by the criteria of the "New Zealand NZS5433:2012: Transport of Dangerous Goods on Land".

Pictograms:

Signal Word:
Danger
UN 2017: ST/SG/AC.10/30/Rev.7 (GHS)

Serious eye damage / eye irritation	Category 2	Causes eye irritation
Specific target organ toxicity	Category 1	Specific target organ toxicity – repeated exposure
Hazardous to the aquatic environment	Category 2	Hazardous to the aquatic environment chronic

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Hazard Statements:

H320	Causes eye irritation
H372	Causes damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long-lasting effects

Prevention Statements:

P103	Read label before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P273	Avoid release to the environment.

Response Statements:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P314	Get medical advice/attention if you feel unwell
P337+P313	IF eye irritation persists: Get medical advice/attention.
P391	Collect spillage.

Storage Statements:

Disposal Statements:

P501	Disposal of waste product and containers must be in accord with local bylaws and regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Chemical Nature:

Ingredient	CAS Number	Content (% w/w)
Manganese Sulphate	10034-96-5	10-30%
Sodium lignosulphonate	8061-51-6	10-30%

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.
Inhalation.
Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.
Eye contact.
If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.
Skin contact.
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. **NEVER** use solvents or thinners.
Ingestion.
If accidentally ingested, seek immediate medical attention. Keep calm. **NEVER** induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.
Acute toxicity – oral and may be harmful if swallowed; Causes eye irritation; Causes damage to organs through prolonged or repeated exposure.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

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SECTION 5: FIREFIGHTING MEASURES.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media.
Recommended extinguishing methods.
Extinguisher powder or CO_2. In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

5.2 Special hazards arising from the mixture.
Special risks.
Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.
Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.
Fire protection equipment.
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.
For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.
Product dangerous for the environment, in case of large spills or if the product contaminates lakes, rivers, or sewers, inform the responsible authorities according to local legislation. Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.
Pick up the spill with non-combustible absorbent materials (soil, sand, vermiculite, diatomite, etc.). Pour the product and the absorbent in an appropriate container. The contaminated area should be immediately cleaned with an appropriate de- contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections.
For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.
For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers.
In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety.
Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.
Store according to local legislation. Observe indications on the label. Store the containers between 5 and 35º C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

7.3 Specific end use(s).
Agricultural

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m³
manganese(2+) hydrate sulfate	10034-96-5	European Union [1]	**Eight hours**		0,2 (as manganese, inhalable fraction) 0,05 (as manganese, respirable fraction)
			Short term		
		United States [2] (Cal/OSHA)	**Eight hours**		0.2 (as Mn)
			Short term		
		United States [3] (NIOSH)	**Eight hours**		1 (as Mn)
			Short term		3 (as Mn)
		United States [4] OSHA)	**Eight hours**		(Ceiling) 5 (as Mn)
			Short term		

[1] According both Binding Occupational Esposure Limits (BOELVs) and Indicative Occupational Exposure Limits (IOELVs) adopted by Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL).
[2] California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).
[3] National Institute for Occupational Safety and Health. NIOSH Recommendations for occupational safety and health, Compendium of Policy Documents and Statements, January, 1992, DHHS (NIOSH) Publication No. 92-100.
[4] Occupational Safety and Health Administration, United States Department of Labor. Permissible Exposure limits (PELs), California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).

8.2 Exposure controls.

Measures of a technical nature:
Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	**100 %**
Uses:	**Agriculture. For professional use only.**
Breathing protection:	
If the recommended technical measures are observed, no individual protection equipment is necessary.	
Hand protection:	
PPE:	Protective gloves against chemicals.
Characteristics:	«CE» marking, category III.
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.

Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480	Material thickness (mm):	0,35

Eye protection:

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Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against splashing liquid, dust, smoke, fog and vapour.
CEN standards:	EN 165, EN 166, EN 167, EN 168
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.
Skin protection:	
PPE:	Protective clothing.
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.
CEN standards:	EN 340
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.
PPE:	Work footwear.
Characteristics:	«CE» marking, category II.
CEN standards:	EN ISO 13287, EN 20347
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.
Appearance:Liquid with characteristic odour and colour
Colour: Dark brown
Odour:Characteristic
Odour threshold:N.A./N.A.
pH:4
Melting point:N.A./N.A.
Boiling Point: N.A./N.A.
Flash point: N.A./N.A.
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density:N.A./N.A.
Relative density:1,33 g/cm^3
Solubility:N.A./N.A.
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: N.A./N.A.
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: N.A./N.A.
Oxidizing properties: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2 Other information.
Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

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SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.
The product does not present hazards by their reactivity.

10.2 Chemical stability.
Unstable in contact with:
- Bases.

10.3 Possibility of hazardous reactions.
Neutralization can occur on contact with bases.

10.4 Conditions to avoid.
- Avoid contact with bases.

10.5 Incompatible materials.
Avoid the following materials:
- Bases.

10.6 Hazardous decomposition products.
- If in contact with bases may generate vapor or gas

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.
There is no test data for this product.

Toxicological information about the substances present in the composition.

a) acute toxicity;
Product not classified:

b) skin corrosion/irritation;
Based on available data, the classification criteria are not met.

c) serious eye damage/irritation;
Product classified:
Serious eye damage, Category 2: causes eye irritation.

d) respiratory or skin sensitisation;
Not conclusive data for classification.

e) germ cell mutagenicity;
Not conclusive data for classification.

f) carcinogenicity;
Not conclusive data for classification.

g) reproductive toxicity;
Not conclusive data for classification.

h) STOT-single exposure;

Not conclusive data for classification.

i) STOT-repeated exposure;
Product classified:
Specific target organ toxicity (repeated exposure); Category 1.

j) aspiration hazard;
Not conclusive data for classification.

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SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.
Aquatic toxicity (chronic); Category 2.

12.2 Persistence and degradability.
No information is available about persistence and degradability of the product.

12.3 Bio accumulative potential.
No information is available regarding the bioaccumulation of the substances present.

12.4 Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.
No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.
No information is available about other adverse effects for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS.

Appropriate and achievable disposal methods, including for packaging must be consistent with the Act and the Disposal Notice and must include special precautions to be taken during disposal and any method of disposal that should not be used.

Disposal Methods
Dispose of at an approved waste site. Refer to waste management authority.

Legislation
Dispose of in accordance with relevant local legislation. Contact a specialist waste company or local regulator for advice

SECTION 14: TRANSPORT INFORMATION.

Road and Rail Transport:
Classified as dangerous goods by the criteria of NZS 5433:2012: Transport of Dangerous Goods on Land.

Sea Transport
IMDG: Classified as dangerous goods under transport regulations

Air Transport
IATA/ICAO: Classified as dangerous goods under transport regulations referring to the finished product.

Rail/Road (RID/ADR)	UN Shipping Name: Toxic liquid, inorganic, N.O.S.(Contains manganese sulphate) UN Number:3082 Class:9 Subsidiary Risk: None Packing group: III Hazchem Code:
Sea (IMDG)	
Air (IATA/ICAO)	

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SECTION 15: REGULATORY INFORMATION.

Classified as hazardous according to the criteria of the Hazardous Substances (Hazard Classification) Notice 2020 – HSR002571 – Fertilisers (Subsidiary Hazard) Group Standard 2020

SECTION 16: OTHER INFORMATION.

This SDS was prepared on 26/10/2021 and is version 3

Date for Next Review of SDS: 26/10/2026

Key/Legend / Abbreviations (when used)

ACGIH – American Conference of Governmental Industrial Hygienists

ADG Code Australian Dangerous Goods

AICS Australian Inventory of Chemical Substances

CEN European Committee for Standardization

EN - European Standard

EU – European Commission

GHS - Globally Harmonized System of classification and labelling of chemicals

IATA - International Air Transport Association

ICAO - International Civil Aviation Organization

IMDG - International Maritime Dangerous Goods Code

LD50 LD stands for Lethal Dose. LD50 is the amount of a substance, given all at once, which causes the death of 50% (one half) of a group of test animals.

HSNO- Hazardous Substances and New Organisms Act 1996

OECD - Organisation for Economic Co-operation and Development

PPE Personal Protective Equipment

REACH – Council on the Registration, Evaluation, Authorization and Restriction of Chemicals

TLV – Threshold Limit Values

TWA – Time-Weighted Average

Report Status

This document is based on the best available information on the date of issue and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for this product. While all due care has been taken to include accurate and up-to-date information, no warranty as to accuracy or completeness is provided. As far as lawfully possible, Sustainable Agro Solutions S.A. accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of reliance on the information contained in this Safety Data Sheet.