

# SAFETY DATA SHEET

## Proleaf Jettzin

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS #: NP-0106-1-A  
Revision date: 2020-03-19  
Format: EU  
Version 1.02

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

Product Code(s) NP-0106-1-A

Product Name Proleaf Jettzin

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

Recommended Use: A fertilizer with micronutrients for use in agriculture and horticulture

Restrictions on use Use as recommended by the label.

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

Manufacturer  
FMC Agro Limited  
Rectors Lane  
Pentre  
Flintshire  
CH5 2DH  
United Kingdom  
Tel: + 44 1244 537370  
E-mail: fmc.agro.uk@fmc.com

For further information, please contact:

Contact point  
Tel: +44(0) 1244 537370  
Email: fmc.agro.uk@fmc.com

#### 1.4. Emergency telephone number

Emergency telephone Medical emergencies:

Austria: +43 1 406 43 43  
Belgium: +32 70 245 245  
Bulgaria: +359 2 9154 409  
Cyprus: 1401  
Czech Republic: +420 224 919 293, +420 224 915 402  
Denmark: +45 82 12 12 12  
France: +33 (0) 1 45 42 59 59  
Finland: +358 9 471 977  
Greece: 30 210 77 93 777  
Hungary: +36 80 20 11 99  
Ireland (Republic): +352 1 809 2166  
Italy: +39 02 6610 1029  
Lithuania: +370 523 62052, +370 687 53378  
Luxembourg: +352 8002 5500  
Netherlands: +31 30 274 88 88  
Norway: +47 22 591300  
Poland: +48 22 619 66 54, +48 22 619 08 97  
Portugal: 800 250 250 (in Portugal only), +351 21 330 3284

Romania: +40 21318 3606  
Slovakia: +421 2 54 77 4 166  
Slovenia: +386 41 650 500  
Spain: +34 91 562 04 20  
Sweden: +46 08-331231112  
Switzerland: 145  
United Kingdom: 0870 600 6266 (in the UK only)  
U.S.A. & Canada: +1 800 / 331-3148  
All other countries: +1 651 / 632-6793 (Collect)

For leak, fire, spill, or accident emergencies, call:  
1 800 / 424-9300 (CHEMTREC - U.S.A. & Canada)  
1 703 / 527 3887 (CHEMTREC - All Other Countries - Collect)

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 (H302)
Skin corrosion/irritation	Category 1 Sub-category C (H314)
Specific target organ toxicity — repeated exposure	Category 2 (H373)
Chronic aquatic toxicity	Category 3 (H412)

### 2.2. Label elements

#### Hazard pictograms



**Signal Word**  
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  
H412 - Harmful to aquatic life with long lasting effects

#### Precautionary Statements

P260 - Do not breathe spray  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P501: Dispose of contents/container as hazardous waste in accordance with local regulations.

### 2.3. Other hazards

This product is not identified as a PBT/vPvB substance.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

The product is a mixture, not a substance.

**3.2 Mixture containing the following hazardous ingredients:**

Chemical name	EC-No	CAS-No	Weight percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
MANGANESE DINITRATE	233-828-8	10377-66-9	30-60	Ox. Sol. 2 (H272); Acute Tox. 4 (H302); Skin Corr. 1C (H314); STOT RE 2 (H373); Aquatic Chronic 3 (H412); (EUH071)	01-2119487993-17-0002
ZINC NITRATE	Present	7779-88-6	1-10	Ox. Sol. 2 (H272); Acute Tox. 4 (H302); Skin Irrit. 2 (H315); Eye Irrit. 2 (H319); STOT SE 3 (H335); Aquatic Acute 1 (H400); Aquatic Chronic 2 (H411)	No data available

**Additional Information**

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

## Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

<b>Eye Contact</b>	Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Transfer to hospital for specialist examination.
<b>Skin Contact</b>	Immediately remove all stained or splashed clothing that is not adhering to the skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.
<b>Inhalation</b>	Remove person from exposure ensuring one's own safety while doing so. If breathing is difficult or if discomfort occurs and persists, obtain medical attention.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

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

<b>Most important symptoms and effects, both acute and delayed</b>	<p>Skin contact: There may be irritation and redness at the site of contact.</p> <p>Eye contact: There may be irritation and redness. The eyes may water profusely.</p> <p>Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.</p> <p>Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.</p> <p>Delayed / immediate effects: Immediate effects can be expected after short-term exposure.</p>
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**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Eye bathing equipment should be available on the premises. Show this safety data sheet to the doctor in attendance.
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## Section 5: FIREFIGHTING MEASURES

**5.1. Extinguishing media**

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers / tanks with water spray.

**Small Fire**

Dry chemical. Carbon dioxide (CO<sub>2</sub>).

**Large Fire**

Water spray. Foam.

**Unsuitable extinguishing media**

Avoid heavy hose streams.

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

Corrosive. Toxic fumes may be released in fire situations.

**5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus and full protective gear. Wear protective clothing to prevent contact with skin and eyes.

**Section 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures****Personal Precautions**

Do not attempt to take action without suitable protective clothing. For personal protection see section 8. Stop leak if you can do it without risk. In case of spill, avoid contact. Isolate area and keep out animals and unprotected persons. Keep people away from and upwind of spill/leak.

For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

Do not discharge into drains or rivers. Contain the spillage using bunding. Accidental release into water courses must be alerted to the appropriate regulatory body.

**6.3. Methods and material for containment and cleaning up****Methods for Containment**

Surface drains within close vicinity of the spill should be covered. Dike to confine spill and absorb with non-combustible absorbent such as clay, sand or soil.

**Methods for cleaning up**

Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

**6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

**Section 7: HANDLING AND STORAGE****7.1. Precautions for safe handling****Handling**

Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Prevent the formation of vapours, mist and aerosols.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

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

Protect from freezing. Store above 5°C. Keep in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from heat. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs.

### 7.3. Specific end use(s)

#### **Specific Use(s)**

Refer to Section 1 and the Annex.

#### **Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

### 8.2. Exposure controls

**Engineering measures** Ensure adequate ventilation, especially in confined areas.

#### **Personal protective equipment**

**Eye/Face Protection** Tightly fitting safety goggles. Provide emergency on-site eyewash.

**Hand Protection** Gloves (acid resistant).

**Skin and Body Protection** Acid-resistant protective clothing.

**Respiratory Protection** Not required under normal use.

**Environmental exposure controls** Refer to specific Member State legislation for requirements under Community environmental legislation.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	Liquid
<b>Appearance</b>	Liquid
<b>Odour</b>	Barely perceptible
<b>Colour</b>	Orange Red
<b>Odour threshold</b>	No information available
<b>pH</b>	1.7 - 2.7
<b>Melting point/freezing point</b>	No information available
<b>Boiling point/boiling range</b>	No information available
<b>Flash point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	
<b>Flammability Limit in Air</b>	
Upper flammability limit:	No information available
Lower flammability limit	No information available
<b>Vapour pressure</b>	No information available
<b>Vapour density</b>	No information available
<b>Specific gravity</b>	1.50 - 1.52
<b>Water solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available

Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidising properties	Non-oxidizing (by EC criteria)

**9.2. Other information**

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	No information available
Bulk density	No information available
K <sub>st</sub>	No information available

**Section 10: STABILITY AND REACTIVITY****10.1. Reactivity**

None under normal use conditions

**10.2. Chemical stability**

Stable under recommended storage conditions.

**Explosion data**

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

**10.3. Possibility of hazardous reactions****Hazardous polymerisation**

Hazardous polymerization does not occur.

**Hazardous reactions**

None under normal processing. Decomposition may occur on exposure to conditions or materials listed below.

**10.4. Conditions to avoid**

Heat.

**10.5. Incompatible materials**

Strong reducing agents, Bases.

**10.6. Hazardous decomposition products**

May emit toxic fumes under fire conditions: Nitrogen oxides (NO<sub>x</sub>).

**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Acute toxicity****Product Information****LD50 Oral**

1105 mg/kg (rat) (Calculated Estimated Acute Toxicity - EAT)

**Skin corrosion/irritation**

No information available.

**Serious eye damage/eye irritation**

No information available.

**Sensitisation** No information available  
**Mutagenicity** No information available.  
**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.

**Symptoms**

Skin contact: Irritation or pain may occur at the site of contact. There may be redness or whiteness of the skin in the area of exposure. An itchy rash may occur at the site of contact. Blistering may occur.

Eye contact: There may be pain and redness. The eyes may water profusely. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. There may be coughing and a sore throat.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

**Aspiration hazard** No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

<b>Ecotoxicity</b>	ALGAE ( <i>Pseudokirchneriella subcapitata</i> ): (calculated)	72H ErC50 = 2.15 mg/L
	DAPHNID ( <i>Daphnia magna</i> ): (calculated)	48H EC50 = 55.5 mg/L
	RAINBOW TROUT ( <i>Oncorhynchus mykiss</i> ): (calculated)	96H LC50 = 22.1 mg/L

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

### 12.4. Mobility in soil

**Mobility in soil**  
No information available.

### 12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

Harmful to aquatic life

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

<b>Waste from residues / unused products</b>	Transfer to a suitable container and arrange for collection by specialised disposal company. Do not contaminate ponds, waterways or ditches with chemical or used containers. Do not discharge to sewer systems.
<b>Contaminated Packaging</b>	Clean container with water. Dispose of rinse water in accordance with local and national guidelines. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>OTHER INFORMATION</b>	NOTE : The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

## Section 14: TRANSPORT INFORMATION

### IMDG/IMO

14.1 UN/ID no	UN1760
14.2 Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (MANGANESE DINITRATE; ZINC NITRATE)
14.3 Hazard class	8
14.4 Packing Group	III
14.5 Marine Pollutant	Not applicable
Environmental Hazard	No
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	This product is not transported in bulk containers.

### RID

14.1 UN/ID no	UN1760
14.2 Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (MANGANESE DINITRATE; ZINC NITRATE)
14.3 Hazard class	8
14.4 Packing Group	III
14.5 Environmental Hazard	No
14.6 Special Provisions	None

### ADR/RID

14.1 UN/ID no	UN1760
14.2 Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (MANGANESE DINITRATE; ZINC NITRATE)
14.3 Hazard class	8
14.4 Packing Group	III
14.5 Environmental Hazard	No
14.6 Special Provisions	None

### ICAO/IATA

14.1 UN/ID no	UN1760
14.2 Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (MANGANESE DINITRATE; ZINC NITRATE)
14.3 Hazard class	8
14.4 Packing Group	III
14.5 Environmental Hazard	No
14.6 Special Provisions	None

## Section 15: REGULATORY INFORMATION

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



National regulations Not applicable

## European Union

### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

### Persistent Organic Pollutants

Not Applicable

### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not Applicable

## International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
MANGANESE DINITRATE 10377-66-9	X	X	X	X	X	X	X	X
ZINC NITRATE 7779-88-6	X	X	X	X	X	X	X	X

## 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under sections 2 and 3

EUH071 - Corrosive to the respiratory tract

H272 - May intensify fire; oxidiser

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H373 - May cause damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H411 - Toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

#### Legend

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS:	CAS (Chemical Abstracts Service)
Ceiling:	Maximum limit value:
DNEL:	Derived No Effect Level (DNEL)
EINECS:	EINECS (European Inventory of Existing Chemical Substances)
GHS:	Globally Harmonised System (GHS)
IATA:	International Air Transport Association (IATA)
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Dangerous Goods (IMDG)

LC50: LC50 (lethal concentration)  
LD50: LD50 (lethal dose)  
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals  
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail  
STEL: Short term exposure limit  
SVHC: SVHC: Substances of Very High Concern for Authorisation:

TWA: time weighted average  
vPvB: very Persistent and very Bioaccumulative

Revision date: 2020-03-19

Reason for revision: SDS sections updated.

Training Advice This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

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**End of Safety Data Sheet**