

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

1.1. Product identifier

Product form : Mixture
Product name : Agrologic N28 + Molyb
Liquid slow release nitrogen fertilizer based on methylene-urea.
Agrologic N28 + Molyb belongs to PFC 1(C)(I)(b)(i).

The substances contained in this mixture are not nanoforms and do not include nanoforms.

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Slow-release nitrogen-based fertilizer, to be sprayed on leaves.

1.2.2. Uses advised against

Restrictions on use : Uses other than those indicated above.

1.3. Details of the supplier of the safety data sheet

ADVAGREEN SA
Drève Richelle 161/O bte 106
1410 Waterloo
BELGIUM
T +32 65 613 200 - F +32 65 613 210
info@advagreen.com

1.4. Emergency telephone number

Emergency number : Belgium +3270 245 245 (Poison Control Centre)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

2.1.2 Additional information

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms: unnecessary.
Signal word: unnecessary.
Hazard statements: none.

Precautionary statements:
P261 Avoid breathing vapours.

2.3. Other hazards

Mixture does not contain substance (s) classified as PBT or vPvB in concentrations above 0,1%.
Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. % w/w	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Urea polymer with formaldehyde	CAS-No.: 9011-05-6	≥ 40 – ≤ 45	Not classified
Urea	CAS-No.: 57-13-6 EC-No.: 200-315-5	≥ 21 – ≤ 26	Not classified
Sodium molybdate dihydrate	CAS-No.: 10102-40-6 EC-No.: 600-158-6	≥ 0.04 - ≤ 0,06	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Remove contaminated clothing (possibly shoes). Wash the affected part of the body with soap or mild detergent and rinse with plenty of water until the product is completely removed (15-20 minutes). Consult a physician if adverse symptoms appear.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
------------------	--

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

Treat symptomatically. Based on the risk assessment of dangerous chemical agents, the competent physician will adopt the most appropriate medical monitoring protocol to protect the health status of workers, in accordance with Article 10 of Directive 98/24/CEE (Title IX of Legislative Decree 81 of 9 April 2008 and subsequent amendments).

No specific antidotes and contraindications are known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Not known.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: An elevated temperature may release toxic gases such as COx, NOx and CH2O.
--	--

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
--------------------------------	--

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak without risks if possible.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer also to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep in a well closed container, away from moisture and light. Provide for a retention basin. This product is chemically stable and can be stored for a long time (about 2 years) under normal temperature conditions (Min: -20 °C and max 40 °C). Not harmed by freezing, thaw frozen fertilizer slowly and stir before using.
Incompatible products : Acids.
Maximum storage period : 2 year
Storage temperature : -20 – 40 °C
Packaging materials : Stainless steel or protected steel with an epoxy resin. Forbidden: copper, ordinary steel, and aluminium.

7.3. Specific end use(s)

The identified uses are described in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

Monitoring methods

Monitoring methods

The measurement of substances in the workplace must be carried out with standardized methods (e.g. UNI EN 689:2019: Workplace atmospheres - Guide for assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy; UNI EN 482:2015: Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents) or, failing that, with appropriate methods.

8.1.3. Air contaminants formed

No additional information available

8.1.4. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Wear protective tightly fitting glasse or protective visor (EN 166).

8.2.2.2. Skin protection

Skin and body protection:

Wear category II professional long-sleeved overalls and safety footwear (EN 344). Wash with soap and water after removing protective clothing.

Hand protection:

Gloves resistant to chemical agents as for the EN 374, parts 1, 2 e 3 and the European Directive 89/89/EEC.

The gloves material must be waterproof and stable against the product/substance/formulation.

Material : nitrile (nitrilic rubber), ipoallergenic.

Thickness : not inferior to 0.12 mm.

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

Thermal hazard protection:

No additional information available.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment. Prevent entry to sewers and public waters.

Other information:

Appropriate risk management measures must be adopted at the workplace. They have to be selected and applied, following the risks assessment carried out by the employer, in connection with the working activity (in according with Directive 98/24/EEC).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: clear.
Appearance	: Clear liquid.
Odour	: Light ammoniacal odour

Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Non flammable
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 9 – 11 (25 °C)
Viscosity, kinematic	: 12 ÷ 16 mm ² /s at 20 °C
Viscosity, dynamic	: 10 – 40 mPa.s (25 °C)
Solubility	: Water: Soluble
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 1.2 – 1.3 (20 °C)
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. The mixture reacts with strong oxidants.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Exposure to elevated temperatures or contact with strong acids may cause polymerisation.

10.5. Incompatible materials

Organic peroxides, strong bases, strong acids, acid anhydrides, amino derivatives, phenols.

10.6. Hazardous decomposition products

An elevated temperature may release toxic gases such as CO_x, NO_x, and CH₂O.

SECTION 11: Toxicological information

Toxicological information on the mixture is not available.

Toxicological information on the main components of the mixture is given below.

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

Information on hazard classes defined in Regulation (EC) No 1272/2008

Urea polymer with formaldehyde: according to available information, the polymer is classified NOT HAZARDOUS.

Urea: according to available information, Urea is classified NOT HAZARDOUS

Sodium molybdate dihydrate: according to available information, Urea is classified NOT HAZARDOUS

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: The mixture does not contain substances included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

The ecological data for the product are not available.

The following are the ecological information on the main components of the mixture.

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Urea (57-13-6)	
Fish	6810 mg/l Leuciscus idus (golden orfe)
Urea polymer with formaldehyde (9011-05-6)	
Fish	the available data do not justify classification
Sodium molybdate dihydrate (10102-40-6)	
Fish	No data available
Urea (57-13-6)	
Crustaceans	EC50 (48 h): > 10,000 mg/L Daphnia magna
Urea polymer with formaldehyde (9011-05-6)	
Crustaceans	the available data do not justify classification
Sodium molybdate dihydrate (10102-40-6)	
Crustaceans	No data available
Urea (57-13-6)	
Algae/aquatic plants	NOEC for freshwater algae (192 h) = 47 mg/L

Urea polymer with formaldehyde (9011-05-6)

Algae/aquatic plants	the available data do not justify classification
----------------------	--

Sodium molybdate dihydrate (10102-40-6)

Algae/aquatic plants	No data available
----------------------	-------------------

12.2. Persistence and degradability

Urea (57-13-6)

Persistence and degradability	Readily biodegradable.
-------------------------------	------------------------

Urea polymer with formaldehyde (9011-05-6)

Persistence and degradability	The urea polymer with formaldehyde is gradually degrading when dispersed in the ground, releasing products which are metabolized by bacteria and secondarily by hydrolysis.
-------------------------------	---

Sodium molybdate dihydrate (10102-40-6)

Persistence and degradability	No data available
-------------------------------	-------------------

12.3. Bioaccumulative potential

Urea (57-13-6)

Bioaccumulative potential	The low value of Log Pow (-1,73 à 22 °C) indicates the low bioaccumulative potential of Urea.
---------------------------	---

Urea polymer with formaldehyde (9011-05-6)

Bioaccumulative potential	NA
---------------------------	----

Sodium molybdate dihydrate (10102-40-6)

Bioaccumulative potential	No data available
---------------------------	-------------------

12.4. Mobility in soil

Urea (57-13-6)

Ecology - soil	The literature data (Log Kow values resulted from the various tests) suggest that Urea has from a moderate to a high soil mobility.
----------------	---

Urea polymer with formaldehyde (9011-05-6)

Ecology - soil	NA
----------------	----

Sodium molybdate dihydrate (10102-40-6)

Ecology - soil	No data available
----------------	-------------------

12.5. Results of PBT and vPvB assessment

Urea (57-13-6)

Results of PBT and vPvB assessment	Considering all available data on biotic and abiotic degradation, bioaccumulation and toxicity, we can state that the substance does not meet the PBT criteria (not PBT) and the criteria for vPvB (not vPvB).
------------------------------------	--

Urea polymer with formaldehyde (9011-05-6)

Results of PBT and vPvB assessment	NA
------------------------------------	----

Sodium molybdate dihydrate (10102-40-6)

Results of PBT and vPvB assessment

No data available

12.6. Endocrine disrupting properties

The mixture does not contain substances included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Other information, restriction and prohibition regulations

: Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work (Official Journal L 183, 29/06/1989 P. 0001 – 0008) and following amendment and National reinforcements.
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

First version.

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate

Abbreviations and acronyms:

BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources

: SDS suppliers.
ChemIDPlus database.
Database PubChem.

Training advice

: Adequately train workers potentially exposed to this substance on the basis of the contents of this informative data sheet. The training of workers must include contents, updates and duration according to the risk profiles assigned to the working sectors to which they belong, according to the procedures provided.

Informative Data Sheet (IDS), EU

The document aims to provide guidance for appropriate handling and precaution of this product by qualified personnel or operating under the supervision of personnel trained in handling chemicals. The product should not be used for purposes other than those mentioned in section 1, unless they are given adequate written information received on how to handle the material.

The provider of this document cannot provide any warnings related to the dangers of using, interaction with other materials or chemicals or user's safe use of the product, the suitability of the product for which is applied or its proper disposal. The information above should not be considered a declaration or guarantee, either expressed or implied, of merchantability, fitness for a particular purpose, quality, or any other.