



Issued on 04/12/2010 - Rel. # 8 on 12/12/2022

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In conformity to Regulation (EU) 2020/878 - In conformity to Regulation (EC) 1907/2006

## SECTION1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product code : Ilsamin CaMg  
Product line: ILSATOP

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

Fertilizers  
Sectors of use:  
Agriculture, forestry, fishery[SU1]  
Product category:  
Fertilizers  
Uses advised against  
Do not use for purposes other than those listed

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

ILSA spa  
Via Quinta Strada 28, 36071 Arzignano (VI)  
Tel. +39 0444 452020  
Email: info@ilsagroup.com  
National contact: ILSA SPA

### 1.4. Emergency telephone number

+39 0444 452020

## SECTION2. Hazards identification

### 2.1. Classification of the substance or mixture

REACH exempt  
2.1.1 Classification according to Regulation (EC) No 1272/2008:  
Pictograms:  
GHS05, GHS07  
Hazard Class and Category Code(s):  
Acute Tox. 4, Eye Dam. 1  
Hazard statement Code(s):  
H302 - Harmful if swallowed.  
H318 - Causes serious eye damage.  
Harmful product: do not ingest.  
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:  
Pictogram, Signal Word Code(s):  
GHS05, GHS07 - Danger  
Hazard statement Code(s):



H302 - Harmful if swallowed.  
H318 - Causes serious eye damage.  
Supplemental Hazard statement Code(s):  
not applicable  
Precautionary statements:  
Prevention  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
Response  
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/...  
Disposal  
P501 - Dispose of contents/container in accordance with valid regulations.  
Contains:  
Nitric acid, ammonium calcium salt

### 2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

The use of this chemical entails the obligation of " Risk Assessment " by the employer in accordance with the provisions of the Safety Regulation. Workers exposed to this chemical agent must not undergo health checks if the results of the risk assessment shows that , in relation to the type and amount of chemical agent and the mode and frequency of exposure to that agent , there is only a "moderate risk" to the health and safety of workers and the measures provided for in the same Decree . They are sufficient to reduce the risk .

## SECTION3. Composition/information on ingredients

### 3.1 Substances

Irrilevant

### 3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
Nitric acid, ammonium calcium salt	>= 30 < 50%	Acute Tox. 4, H302; Eye Dam. 1, H318 ATE oral = 500,0 mg/kg ATE dermal = 2.000,0 mg/kg	ND	15245-12-2	239-289-5	01-211949 3947

## SECTION4. First aid measures

### 4.1. Description of first aid measures

Inhalation:

Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product):

Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately

Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:

The product is harmful and can cause irreversible damages even following a single exposure if swallowed.

Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

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

No data available.

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

Immediately call a POISON CENTER/doctor/...

### **SECTION5. Firefighting measures**

#### **5.1. Extinguishing media**

Advised extinguishing agents:

Water spray, CO<sub>2</sub>, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing means to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

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

No data available.

#### **5.3. Advice for firefighters**

Use protection for the breathing apparatus

Safety helmet and full protective suit.

The spray water can be used to protect the people involved in the extinction

You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

### **SECTION6. Accidental release measures**

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

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:

Wear mask, gloves and protective clothing.

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provision of sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

#### **6.2. Environmental precautions**

Contain spill with earth or sand.

If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the the authorities.

Discharge the remains in compliance with the regulations

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

6.3.1 For containment:

Rapidly recover the product, wear a mask and protective clothing

Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.

Prevent it from entering the sewer system.

6.3.2 For cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

#### **6.4. Reference to other sections**

Refer to paragraphs 8 and 13 for more information

## SECTION7. Handling and storage

### 7.1. Precautions for safe handling

Avoid contact and inhalation of vapors  
Wear protective gloves/protective clothing/eye protection/face protection.  
At work do not eat or drink.  
Do not eat, drink or smoke when using this product.  
See also paragraph 8 below.

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

Keep in original container closed tightly. Do not store in open or unlabeled containers.  
Keep containers upright and safe by avoiding the possibility of falls or collisions.  
Store in a cool place, away from sources of heat and `direct exposure of sunlight.

### 7.3. Specific end use(s)

Agriculture, forestry, fishery:  
Fertilizers.

## SECTION8. Exposure controls/personal protection

### 8.1. Control parameters

Related to contained substances:  
Nitric acid, ammonium calcium salt:  
No exposure limit value known.  
Recommended monitoring procedures : If this product contains ingredients with exposure limits , you may be asked personal monitoring , workplace atmosphere and biology to determine the effectiveness of the ventilation or other control measures and / or the need to use respiratory protective equipment . Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance on methods for the determination of hazardous substances.  
- Substance: Nitric acid, ammonium calcium salt  
DNEL  
Systemic effects Long term Workers inhalation = 98 (mg/m<sup>3</sup>)  
Systemic effects Long term Workers dermal = 13,9 (mg/kg bw/day)  
Systemic effects Long term Consumers inhalation = 25,2 (mg/m<sup>3</sup>)  
Systemic effects Long term Consumers dermal = 8,33 (mg/kg bw/day)  
Systemic effects Short term Consumers oral = 10 (mg/kg bw/day)  
PNEC  
Sweet water = 0,45 (mg/l)  
Sea water = 0,04 (mg/l)  
intermittent emissions = 4,5 (mg/l)  
STP = 18 (mg/l)

### 8.2. Exposure controls

Appropriate engineering controls:  
Agriculture, forestry, fishery:  
Use in accordance with good agricultural practices.  
Individual protection measures:  
(a) Eye / face protection  
Wear mask  
(b) Skin protection  
(i) Hand protection  
When handling the pure product use chemical resistant protective gloves  
(EN 374-1/EN374-2/EN374-3)  
(ii) Other  
When handling the pure product wear full protective skin clothing.  
(c) Respiratory protection



Use adequate protective respiratory equipment (EN 14387:2008)

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Related to contained substances:

Nitric acid, ammonium calcium salt:

Appropriate engineering controls: If use can generate dust, fumes, gas, vapor or mist, use process enclosures, use local exhaust ventilation controls, or other control devices necessary to maintain worker exposure to pollutants in 'air below any recommended or prescribed by the law.

Individual protection measures

Hygiene measures: before eating, smoking and using the lavatory and at the end of day, wash your hands, forearms and face thoroughly after handling chemical products.

protection device for eye and face: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended: Safety glasses that ensure perfect positioning on the face CEN: EN166

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. > 8 hours

(breakthrough time): Gloves: under normal conditions of use must wear protective gloves.

Body protection: Additional body garments should be used (eg. sleeves, apron, gauntlets, disposable suits, etc.) based on the task being performed.

Other skin protection: Under normal conditions of handling and use, it should take no additional skin protection measures.

Respiratory protection: In case of inadequate ventilation wear respiratory protection. Recommended: The P2 filter (EN 143)

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of the legislation on environmental protection. In some cases, users will need to fume scrubbers, filters or engineering modifications to the process equipment to reduce emissions to acceptable levels.

## SECTION9. Physical and chemical properties

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

Physical and chemical properties	Value	Determination method
Physical state	Liquid	
Colour	Yellow	
Odour	Not determined	
Odour threshold	Not determined	
Melting point/freezing point	Not determined	
Boiling point or initial boiling point and boiling range	Not determined	
Flammability	Not determined	
Lower and upper explosion limit	Not determined	
Flash point	Irrelevant	
Auto-ignition temperature	Not determined	
Decomposition temperature	Not determined	
pH	5.5 - 6.5	
Kinematic viscosity	Not determined	
Solubility	Not determined	
Water solubility	Not determined	
Partition coefficient n-octanol/water (log value)	Not determined	
Vapour pressure	Not determined	

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Physical and chemical properties	Value	Determination method
Density and/or relative density	1.40 kg/dm <sup>3</sup>	
Relative vapour density	Not determined	
Particle characteristics	Not determined	

## 9.2. Other information

### 9.2.1 Information with regard to physical hazard classes

Irrilevant

### 9.2.2 Other safety characteristics

Irrilevant

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

Related to contained substances:

Nitric acid, ammonium calcium salt:

No specific test data related to reactivity available for this product or its ingredients.

### 10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

### 10.3. Possibility of hazardous reactions

There are no hazardous reactions

### 10.4. Conditions to avoid

Related to contained substances:

Nitric acid, ammonium calcium salt:

Avoid contamination by any source including metals, dust and organic materials. Keep away from heat, sparks and flame. Keep away from direct sunlight.

### 10.5. Incompatible materials

It can generate toxic gases to contact with oxidants mineral acids, elementary metals.

It can ignite in contact with elementary metals, organic peroxides, organic water peroxides.

### 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

## SECTION 11. Toxicological information

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

ATE(mix) oral = 1.515,2 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

(a) acute toxicity: Harmful product: do not ingest.

Nitric acid, ammonium calcium salt: Nitric acid, ammonium salt and calcium

Oral LD<sub>50</sub>, rat, 500 mg / kg 423 Acute Oral toxicity - Acute Toxic Class Method, IUCLID 5

Dermal LD<sub>50</sub>, Rat, > 2,000 mg / kg OECD 402, IUCLID 5

Harmful if swallowed.

(b) skin corrosion/irritation: Nitric acid, ammonium calcium salt: Skin: No known significant effects or critical hazards.

Nitric acid, ammonium calcium salt: Skin: No known significant effects or critical hazards.

(c) serious eye damage/irritation: If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

Nitric acid, ammonium calcium salt: Nitric acid, ammonium salt and calcium

Eyes - Severe irritant OECD 405, rabbit, 24-72 h, 21 days, IUCLID 5

Eyes : Causes serious eye damage.

Nitric acid, ammonium calcium salt: Nitric acid, ammonium salt and calcium

Eyes - Severe irritant OECD 405, rabbit, 24-72 h, 21 days, IUCLID 5

Eyes : Causes serious eye damage.

(d) respiratory or skin sensitisation: Nitric acid, ammonium calcium salt: Skin: Not sensitizing.

Respiratory: Not determined.

(e) germ cell mutagenicity: Nitric acid, ammonium calcium salt: No mutagenic effect.

(f) carcinogenicity: Nitric acid, ammonium calcium salt: No carcinogenic effect.

(g) reproductive toxicity: Nitric acid, ammonium calcium salt: Nitric acid, ammonium salt and calcium  
maternal toxicity Negative

fertility Negative

Developmental toxicity Negative

Rat species

Oral Dose : 1,500 mg / kg OECD 422

Exposure 53 days

References IUCLID 5

No known significant effects or critical hazards.

(h) specific target organ toxicity (STOT) single exposure: Nitric acid, ammonium calcium salt: Inhalation : May give off gas, vapor or dust that is very irritating to the respiratory system. Exposure to decomposition products may cause a health hazard. Following exposure may cause serious delayed effects.

Ingestion : Harmful if swallowed. May cause burns to mouth, throat and stomach.

Skin contact : No known significant effects or critical hazards.

Eye contact : Causes serious eye damage.

(i) specific target organ toxicity (STOT) repeated exposure: Nitric acid, ammonium calcium salt: Teratogenicity No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short-term exposure

Potential immediate effects : Contraindications to health are considered unlikely, when the product is handled.

Potential delayed effects : None identified.

long-term exposure

Potential immediate effects : Contraindications to health are considered unlikely, when the product is handled.

Potential delayed effects : None identified.

Potential Chronic Health Effects

nitric acid, ammonium salt and calcium

Sub-acute NOAEL Oral

Rat

> 1000 mg / kg OECD 407

28 days

IUCLID 5

(j) aspiration hazard: Nitric acid, ammonium calcium salt: Respiratory: No known significant effects or critical hazards.

Related to contained substances:

Nitric acid, ammonium calcium salt:

Symptoms related to the physical, chemical and toxicological

Inhalation: No specific data.

Ingestion: Adverse symptoms may include the following: stomach pains

Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occur

Eye contact: Adverse symptoms may include the following: pain watering redness

Conclusion / Summary: Not toxic.

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.



Teratogenicity: No known significant effects or critical hazards.  
Developmental effects: No known significant effects or critical hazards.  
Fertility effects: No known significant effects or critical hazards.  
Toxic kinetic effects  
Absorption: Absorbed quickly.  
Distribution: Systemic Enter the bloodstream without passing through the liver tissue.  
Metabolism: Metabolized rapidly. Metabolized in:  $\text{Ca}^{2+} + \text{NH}_4 + \text{NO}_3^-$   
Elimination: excreted through the urine. The chemical and its metabolites are fully excreted and does not accumulate within the body.  
LD50 (rat) Oral (mg/kg body weight) = 500  
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

#### 11.2. Information on other hazards

No data available.

## SECTION 12. Ecological information

### 12.1. Toxicity

Related to contained substances:  
Nitric acid, ammonium calcium salt:  
Nitric acid , ammonium salt and calcium  
Acute LC50 447 mg / l Fresh water Fish - Fish, 48 h , IUCLID 5  
Acute EC50 > 100 mg / l Fresh water OECD 202 , Aquatic invertebrates Daphnia , 48 h , IUCLID 5  
Acute LC50 > 100 mg / l Fresh water OECD 201 , Aquatic plants - Algae , 72 h , IUCLID 5  
The product does not show any bioaccumulation phenomena . The product is not considered harmful to the environment when used properly according to directions.  
C(E)L50 (mg/l) = 100  
Use according to good working practices to avoid pollution into the environment.

### 12.2. Persistence and degradability

Related to contained substances:  
Nitric acid, ammonium calcium salt:  
Readily biodegradable in plants and soils .  
Nitric acid , ammonium salt and calcium  
Not relevant for inorganic substances.

### 12.3. Bioaccumulative potential

Related to contained substances:  
Nitric acid, ammonium calcium salt:  
Nitric acid , ammonium salt and calcium  
LogPow < 0  
No known significant effects or critical hazards.

### 12.4. Mobility in soil

Related to contained substances:  
Nitric acid, ammonium calcium salt:  
Coefficient of soil / water partition ( KOC ) : < 1  
Mobility : This product can be transported by surface water or groundwater due to its water solubility.

### 12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

### 12.6. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100



## 12.7. Other adverse effects

No adverse effects

## SECTION13. Disposal considerations

### 13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies. Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

## SECTION14. Transport information

### 14.1. UN number or ID number

Not included in the scope of application regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

### 14.2. UN proper shipping name

None

### 14.3. Transport hazard class(es)

None

### 14.4. Packing group

None

### 14.5. Environmental hazards

None

### 14.6. Special precautions for user

No data available.

### 14.7. Maritime transport in bulk according to IMO instruments

N.A.

## SECTION15. Regulatory information

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

Related to contained substances:

Nitric acid, ammonium calcium salt:

EU Regulation ( EC ) No . 1907/2006 ( REACH )

Annex XIV - List of substances subject to authorization Substances of very high concern

Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted .

List IPPC ( integrated environmental authorization ) - Air : Not listed

List IPPC ( integrated environmental authorization ) - Water: Not listed

Seveso II Directive

This product is not controlled under the Seveso II Directive .

national regulations

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Legislative Decree no. 152/06 : Not classified.

Other information : Commission Regulation ( EC ) No. 2003/2003 , Legislative Decree no. 75/2010.

Notes : At the level of our knowledge no other specific applicable local or national regulations.

15.2 Chemical Safety Assessment : Complete.

Italy

D.Lgs. 9/4/2008 n. 81

D.M. Lavoro 26/02/2004 (Occupational Exposure Limits)

EU:

Regolamento (CE) n. 1907/2006 (REACH)

Regolamento (CE) n. 1272/2008 (CLP)

Regolamento (CE) n. 790/2009 (ATP 1 CLP) e (UE) n. 758/2013

Regolamento (UE) n. 286/2011 (ATP 2 CLP)

Regolamento (UE) n. 618/2012 (ATP 3 CLP)

Regolamento (UE) n. 487/2013 (ATP 4 CLP)

Regolamento (UE) n. 944/2013 (ATP 5 CLP)

Regolamento (UE) n. 605/2014 (ATP 6 CLP)

Regolamento (UE) n. 830/2015

Regolamento (UE) n. 1221/2015 (ATP 7 CLP)

Regolamento (UE) n. 918/2016 (ATP 8 CLP)

Regolamento (UE) n. 1179/2016 (ATP 9 CLP)

Regolamento (UE) n. 776/2017 (ATP 10 CLP)

REGULATION (EU) No 1357/2014 - waste:

HP4 - Irritant — skin irritation and eye damage

Substances in the Candidate List (REACH Article 59)

Based on available data, no SVHC substances are present

## 15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

## SECTION 16. Other information

### 16.1. Other information

Points modified compared to previous release: 1.4. Emergency telephone number, 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 4.3. Indication of any immediate medical attention and special treatment needed, 6.1. Personal precautions, protective equipment and emergency procedures, 6.2. Environmental precautions, 8.2. Exposure controls, 10.4. Conditions to avoid, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 12.5. Results of PBT and vPvB assessment, 12.6. Endocrine disrupting properties, 13.1. Waste treatment methods, 14.7. Maritime transport in bulk according to IMO instruments, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of the hazard statements exposed to point 3

H302 = Harmful if swallowed.

H318 = Causes serious eye damage.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008

H302 - Harmful if swallowed. Classification procedure: Calculation method

H318 - Causes serious eye damage. Classification procedure: Calculation method

Information sources:

ECHA and EINECS Web sites

Form drawn up according to the Guide to the compilation of the ECHA safety data sheets.

Document, established in accordance with the guidelines published by EFMA (European Fertilizer Manufacturers Association) and according to the Guide to the compilation of safety data sheets ECHA.

The information in this Safety Data Sheet has been provided in good faith and in the belief that they are accurate, based on our knowledge of the product dating from the time of publication. This does not imply the acceptance of any liability by the by the Company Manufacturer / Responsible for placing on the market for the consequences related to its use or misuse in any particular circumstance.

It does in no way exempt the user of the product from observing all the legislative, administrative and regulatory related to the product, hygiene and safety at work.

Acronyms:

ADR: European agreement on the international transport of dangerous goods by road

ACGIH: American conference of government industrial hygienists

CAS: chemical abstracts service

CLP: classification, labeling and packaging

EINECS: European inventory of existing chemicals

IATA: international air transport association

IMDG Code: international maritime code for the transport of dangerous goods

PBT: persistent, bioaccumulative, toxic

PNOC: particles not otherwise classifiable

REACH: registration, evaluation, authorization and restriction of chemicals

RID: regulation concerning the internal transport of dangerous goods by rail

TLV: threshold limit value

TWA: time-weighted average

UVCB: substances of unknown or variable composition, products of a complex reaction or biological materials

vPvB: very persistent, very bioaccumulative

\*\*\* This sheet supersedes any previous edition.