

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 with amendments



CalMag Liquid

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

1.1. Product identifier

Product form : Mixture

Trade name : Van Iperen CalMag Liquid

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

1.2.1. Relevant identified uses

Main use category : Professional use

Use of product : Fertilizer

Component of mixed fertilisers

Title

Professional use in formulation of preparations and end-use

(ES Ref.: CN 3_CalMag)

Remark relevant uses

Full text of use descriptors: see section 16

Use descriptors

SU22, PC4, PC12, PC14, PC16, PC20, PC21, PC35, PC37, PROC1, PROC2, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC15, PROC20, ERC8a, ERC8b, ERC8c, ERC8d, ERC8e, ERC9a, ERC9b

Consult also the relevant exposure scenario in the appendix

1.2.2. Uses advised against

Restrictions on use : Uses against are not known

1.3. Details of the supplier of the safety data sheet

Van Iperen International BV

Smidsweg 24

3273 LK Westmaas - Nederland

T +31 (0) 186 578 888 - F +31 (0) 186 573 452

info@iperen.com - www.vaniperen.com

1.4. Emergency telephone number

In case of emergency contact the national emergency telephone number: UK and Ireland: 112 or 999

Country	Official advisory body	Address	Emergency number
Ireland (Republic of)	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4

H302

On basis of test data

Serious eye damage/eye irritation, Category 1

H318

Calculation method

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to display Extra classification(s) to display

Hazard pictograms (CLP) :



GHS05



GHS07

CLP Signal word

: Danger

Hazardous ingredients

: Calcium nitrate

Hazard statements (CLP)

: H302 - Harmful if swallowed

H318 - Causes serious eye damage

Precautionary statements (CLP)

: P264 - Wash hands thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P280 - Wear protective gloves, protective clothing, face protection, eye protection

P301+P312 - IF SWALLOWED: Call doctor (Poison Center) if you feel unwell

P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

This substance/mixture does not meet the PBT- and/or vPvB-criteria of REACH regulation, annex XIII

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium nitrate 51%	(CAS No) 10124-37-5 (EC no) 233-332-1 (REACH-no) 01-2119495093-35	50 - 60	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact

: Rinse with water. Soap may be used. Remove all contaminated clothing and footwear. Take victim to a doctor if irritation persists. Wash contaminated clothing before reuse.

First-aid measures after eye contact

: Immediately flush eyes with plenty of water (> 15min), occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist.

First-aid measures after ingestion

: Consult a doctor/medical service if you feel unwell. Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do NOT induce vomiting. Do not give an unconscious person anything to drink.

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

Symptoms/injuries after skin contact

: Repeated or prolonged skin contact may cause irritation.

Symptoms/injuries after eye contact

: Redness of the eye tissue. Irritation of the eye tissue.

Symptoms/injuries after ingestion

: Nausea. Abdominal pain. After absorption of high quantities: methemoglobinemia, blue/grey discolouration of the skin, feeling of weakness, dizziness, respiratory difficulties.

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

Normally no immediate medical service and special treatment is needed. Follow the advices in chapter 4.1. The product can cause methemoglobinemia.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use fire extinguishing methods suitable to surrounding conditions. Preferably: water. Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Direct fire hazard: Non combustible.

Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire

5.3. Advice for firefighters

: When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, nitrogen oxides (NOx)

Precautionary measures fire : Exposure to fire/heat: keep upwind, consider evacuation and have neighbourhood close doors and windows.

Firefighting instructions : Dilute toxic gases with water spray.

Protection during firefighting : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure adequate air ventilation. Do not get in eyes, on skin, or on clothing.

Keep away from naked flames/heat.

6.1.1. For non-emergency personnel

Protective equipment : Wear protective gloves/protective clothing/eye protection as advised in section 8.

Emergency procedures : Mark the danger area. No naked flames. Keep containers closed. Wash contaminated clothes.

In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

Protective equipment : Wear protective gloves/protective clothing/eye protection as advised in section 8.

6.2. Environmental precautions

Stop leaks if possible. Dam up the liquid spill. Prevent spreading in sewers. Prevent soil and water pollution. Contain leaking substance, pump over in suitable containers. Turn leaking containers leak-side up to prevent the escape of liquid. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Any spillage should be cleaned up immediately. Collect spill in closed and suitable containers for disposal. Take up rest of liquid spill into absorbent material sand, earth, vermiculite. Scoop absorbed substance into closing containers.

Methods for cleaning up : Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

Other information : Dispose the product, depending on the degree and type of contamination, either as fertilizer or in an authorized waste disposal site.

6.4. Reference to other sections

See section 1 for emergency contact information.

See section 8 for information on appropriate personal protective equipment. See section 13 for additional waste treatment information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use sufficient ventilation. Do not get in eyes, on skin, or on clothing.

Wear protective gloves/protective clothing/eye protection as advised in section 8. Care for eyewashstations at the workplace. Avoid splashing.

Hygiene measures : Do not eat, drink or smoke during use. Always wash hands after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep preferably in the original container.

Incompatible materials : Keep away from iron. Do not use with copper/aluminium/zinc - risk of corrosion.

Storage temperature : -15 - 30 °C

Heat and ignition sources : Keep substance away from: heat sources.

Prohibitions on mixed storage: Keep substance away from: combustible materials, reducing agents, (strong) acids, (strong) bases, organic materials, metals.

Storage area : Store in dry, cool, well-ventilated area. Keep out of direct sunlight.

Provide for a tub to collect spills.

Special rules on packaging : Meet the legal requirements. correctly labelled, closing.

Secure fragile packagings in solid containers.

Packaging materials : Suitable material: synthetic material, glass, stainless steel Material to avoid: aluminium, iron, copper

7.3. Specific end use(s)

Fertilizers. Consult the identified uses in the annex of this MSDS.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

CalMag Liquid	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	13.9 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	36.7 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	8.33 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	10.9 mg/m ³
Long-term - systemic effects, dermal	8.33 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.45 mg/l
PNEC aqua (marine water)	0.045 mg/l
PNEC aqua (intermittent, freshwater)	4.5 mg/l

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PNEC (STP)	
PNEC sewage treatment plant	18 mg/l

8.2. Exposure controls

Appropriate engineering controls : No particular/specific measures required. Good practice advice:

Ensure good ventilation of the work station. Care for eyewashstations at the workplace.

Personal protective equipment : Protective clothing. Gloves. Safety glasses.



Hand protection : Gloves

Material selection gloves : Take advice to your gloves' supplier, Replace damaged gloves

Type	Material	Permeation	Thickness (mm)	Standard
Reusable gloves	Nitrile rubber (NBR) 6	(> 480 min)	0,38	EN 374
Reusable gloves	Polyvinylchloride (PVC)	6 (> 480 min)	0,5	EN 374

Eye protection : Safety glasses

Skin and body protection : Normal working clothes are suitable

Respiratory protection : Ensure adequate air ventilation. Mist formation: aerosol mask with filter type P2

Environmental exposure controls : In some cases proces modifications will be necessary to reduce emissions to acceptable levels.

Emissions from ventilation or work process equipment should be checked to ensure they comply with legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Colourless.
Odour	: Odourless.
Odour threshold	: No data available
pH solution	: 5 - 7,5 (10%-solution)
Crystallization temperature	: < -20 °C
Boiling point	: Not applicable
Flash point	: Not applicable
Vapour pressure	: +/- 2300 hPa (as water)
Density	: 1,43 kg/l (25°C)
Solubility	: Soluble in water.
Log Pow	: No data available
Decomposition temperature	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidising.

9.2. Other information

VOC content	: Not applicable
Other properties	: Clear.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is not considered as reactive.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Thermal decomposition can lead to the escape of irritating gases and vapours (oxides of nitrogen).

Decontamination with reducing agents or strong acids can cause formation of toxic gases (oxides of nitrogen). It can enhance combustion of other substances.

10.4. Conditions to avoid

Avoid high temperatures. Temperatures lower than -5°C. Contamination with combustible materials.

10.5. Incompatible materials

May be corrosive to some metals. Keep substance away from: reducing agents, combustible materials.

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10.6. Hazardous decomposition products

On heating/burning: release of toxic and corrosive gases/vapours (nitrous vapours).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.
Overexposure to this material may result in methemoglobinemia

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LD50 oral rat 300 - 2000 mg/kg bodyweight (OECD 423)
LD50 dermal rat > 2000 mg/kg bodyweight (OECD 402 with potassium pentacalcium nitrate decahydrate)
LC50 inhalation rat (mg/l) (no data, low vapour pressure)
Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye damage.
Symptoms may include: redness of the eye tissue, lacrimation
Risk of serious permanent damages to eyes if the product is not rapidly removed
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure): Not classified

Calcium nitrate 51% (10124-37-5)

NOAEL (subacute, oral, animal/male, 28 days) 150 mg/kg bodyweight (OECD 407, EU B.7. Nitcal-/ K (potassium pentacalcium nitrate decahydrate)

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Classification concerning the environment: not applicable.
Ecology - air : Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009).
TA-Luft Klasse 5.2.1.
Ecology - water : Mild water pollutant (surface water). Ground water pollutant. For Flanders: maximum concentration in drinking water: 270 mg/l (calcium)(M.B. 28/1/2003). Maximum concentration in drinking water: 50 mg/l (nitrate) (Directive 98/83/EC). Not harmful to fishes (LC50(96h) >1000 mg/l). May cause eutrophication.

Calcium nitrate 51% (10124-37-5)

LC50 fish 1	1378 mg/l 96-h (OECD 203, with potassium nitrate)
EC50 Daphnia 1	490 mg/l 48-h (no guideline followed, with potassium nitrate)
ErC50 (algae)	> 1700 mg/l 10-d (seawater, no guideline followed, performed with potassium nitrate)
NOEC (acute)	180 mg/l 3-h EC50: >1000 mg/l (OECD 209, with sodium nitrate)

12.2. Persistence and degradability

CalMag Liquid

Persistence and degradability According to literature, easily degradable in the soil.

Calcium nitrate 51% (10124-37-5)

Persistence and degradability	Biodegradable in the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Biodegradation	The average biodegradation rate in a wastewater plant at 20 °C (dissolved solid/day): 70 g N/kg

12.3. Bioaccumulative potential

Calcium nitrate 51% (10124-37-5)

Log Kow	Not relevant as the substance is inorganic, considered to be low (based on high water solubility)
Bioaccumulative potential	Slightly or not bioaccumulative.

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12.4. Mobility in soil

Calcium nitrate 51% (10124-37-5)

Ecology - soil	Soluble in water. Low potential for adsorption (based on substance properties).
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12.5. Results of PBT and vPvB assessment

CalMag Liquid

This mixture does not meet the PBT- and/or vPvB- criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

European List of Waste (LoW) code : 06 03 14 - solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
Depending on branch of industry and production process, also other EURAL codes may be applicable, The EURAL code must be assigned by the user, preferably in consultation with the (environmental) authorities concerned

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose the product, depending on the degree and type of contamination, either as fertilizer or in an authorized waste disposal site. Empty and rinsed containers can be disposed as non- hazardous material or be returned for recycling.

Waste disposal recommendations : Do not discharge into drains or the environment. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) : Not applicable

14.4. Packing group

Packing group : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport
Transport regulations (ADR) : Not subject
- Transport by sea
No data available
- Air transport
Transport regulations (IATA) : Not subject
- Inland waterway transport
Carriage prohibited (ADN) : No
Not subject to ADN : No
- Rail transport
Transport regulations (RID) : Not subject
Carriage prohibited (RID) : No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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

Contains no REACH substances with Annex XVII restrictions.

Contains no substance on the REACH candidate list. Contains no REACH Annex XIV substances VOC content : Not applicable

Other information, restriction and prohibition regulations

: Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources.

15.1.2. National regulations

Netherlands

Waterbezuwaarlijkheid : 11 - Weinig schadelijk voor in het water levende organismen

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SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid: None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling: None of the components are listed

15.2. Chemical safety assessment

Chemical safety assessments for substances in this preparation were carried out

SECTION 16: Other information

Version : 2.0 according to Regulation (EU) 2015/830
Revision date : 19/04/2016
Date of issue : 15/03/2012
Supersedes : 15/03/2012
Indication of changes : Revised safety data sheet in accordance with commission regulation (EU) No 2015/830.

1.2	Exposure scenarios	Added	
8.2	Hand protection	Added	

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
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
OECD	Organisation for Economic Co-operation and Development
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA Website: Information on Registered Substances.
Handbook of Chemistry and Physics CRC
Press Inc. GESTIS Substance Database .
Information from suppliers.

Training advice : Before using/handling the product one must read carefully the MSDS.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H302	Harmful if swallowed
H318	Causes serious eye damage
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8b	Wide dispersive indoor use of reactive substances in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
ERC8d	Wide dispersive outdoor use of processing aids in open systems
ERC8e	Wide dispersive outdoor use of reactive substances in open systems

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ERC9a	Wide dispersive indoor use of substances in closed systems
ERC9b	Wide dispersive outdoor use of substances in closed systems
PC12	Fertilizers
PC14	Metal surface treatment products, including galvanic and electroplating products
PC16	Heat Transfer Fluids
PC20	Products such as ph-regulators, flocculants, precipitants, neutralization agents
PC21	Laboratory chemicals
PC35	Washing and cleaning products (including solvent based products)
PC37	Water treatment chemicals
PC4	Anti-Freeze and De-icing products
PROC1	Use in closed process, no likelihood of exposure
PROC10	Roller application or brushing
PROC13	Treatment of articles by dipping and pouring
PROC15	Use as laboratory reagent
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC20	Heat and pressure transfer fluids in dispersive use but closed systems
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Company disclaimer

The information provided in this safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any proceed, unless specified in the text.