

Safety Data Sheet

according to Regulation (EC) No. 453/2010



Optifos Liquid

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

1.1. Product identifier

Product form : Mixture
Trade name : Optifos Liquid
EC-FERTILISER : C.2.7.

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 the substance/preparation : Component of mixed fertilisers

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Van Iperen International BV
Smidsweg 24
3273 LK Westmaas – The Netherlands
T +31 (0) 186 578 888 - F +31 (0) 186 57 3452
info@iperen.com - www.vaniperen.com

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number
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]

Skin Irrit. 2 H315
Eye Irrit. 2 H319

Full text of H-phrases: 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]

Hazard pictograms (CLP) :



GHS07

CLP Signal word : Warning
Hazardous ingredients : Potassium carbonate
Hazard statements (CLP) : H315 - Causes skin irritation
H319 - Causes serious eye irritation
Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection.
P302+P352 - IF ON SKIN: Wash with plenty of soap and 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
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Potassium carbonate	(CAS No.) 584-08-7 (EC no) 209-529-3 (REACH-no) 01-2119532646-36	10	Xi; R36/37/38
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium carbonate	(CAS No.) 584-08-7 (EC no) 209-529-3 (REACH-no) 01-2119532646-36	10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Full text of R-, H- and EUH-phrases: 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 the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact

: Wash immediately with lots of water. Soap may be used.
Take victim to a doctor if irritation persists. Wash contaminated clothing before reuse.

First-aid measures after eye contact

: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do.
Continue rinsing. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion

: Rinse mouth with water. If victim conscious and alert, give 1-2 glasses of water to drink.
Immediately after ingestion: give lots of water to drink. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

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

Symptoms/injuries after skin contact

: Tingling/irritation of the skin.

Symptoms/injuries after eye contact

: Irritation of the eye tissue.

Symptoms/injuries after ingestion

: Gastrointestinal complaints. Nausea. Vomiting. Diarrhoea.

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

Follow the advices in chapter 4.1.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Extinguishing media for surrounding fires : All extinguishing media allowed.
Use fire extinguishing methods suitable to surrounding conditions.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Direct fire hazard: No fire hazard.
- Explosion hazard : No direct explosion hazard.
- Reactivity : Substance has basic reaction. Reacts violently with (strong) acids.

5.3. Advice for firefighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to heat: seal off low-lying areas.
Exposure to fire/heat: have neighbourhood close doors and windows.
- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety.
Do not move the load if exposed to heat.
- Protection during firefighting : 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.
Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid all eyes and skin contact and do not breathe vapour and mist.
Ensure adequate air ventilation.

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. Keep unnecessary and unprotected personnel from entering.
Wash contaminated clothes.

6.1.2. For emergency responders

- Protective equipment : See also the information in "For non-emergency personnel".

6.2. Environmental precautions

Contain leaking substance, pump over in suitable containers. Stop leaks if possible.
Prevent spreading in sewers. Prevent soil and water pollution.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leaks if possible. Any spillage should be cleaned up immediately.
- Methods for cleaning up : Large amounts: transfer the product in suitable packing with correct labels.
Take up rest of liquid spill into absorbent material sand, earth, vermiculite.
Scoop absorbed substance into closing containers. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

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.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Wear protective gloves/protective clothing/eye protection as advised in section 8. Do not breathe vapor or mist. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Observe normal hygiene standards. Keep container tightly closed. Meet the legal requirements.
- Hygiene measures : Do not eat, drink or smoke during use. If on skin, take off contaminated clothing. Care for eyewashstations and security showers at the workplace. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage temperature : -10 - 30 °C
- Heat-ignition : Keep substance away from: heat sources.
- Prohibitions on mixed storage : Keep substance away from: oxidizing agents, (strong) acids.
- Storage area : Store in a cool area. Meet the legal requirements. Provide for a tub to collect spills.
- Special rules on packaging : Do not store in unlabelled containers. Keep packaging closed when not in use. Meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : Suitable material: polyethylene. stainless steel. Keep preferably in the original container.

7.3. Specific end use(s)

Component of mixed fertilisers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium carbonate (584-08-7)	
DNEL/DMEL (Workers)	
Long-term - local effects, dermal	16 mg/cm ²
Long-term - systemic effects, inhalation	10 mg/m ³
DNEL/DMEL (General population)	
Long-term - local effects, dermal	8 mg/cm ²
Long-term - local effects, inhalation	10 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment :



- Hand protection : Gloves.
- Material selection gloves : Good resistance gives: rubber, butyl rubber, viton
Take advice to your gloves' supplier. Replace damaged gloves
- Eye protection : Safety glasses. Face shield where there is a risk of leaks or splashes.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : If this product is handled normally, there is no demand of any respiratory protection.
Mist formation: aerosol mask with filter type P2.
- Environmental exposure controls : Do not allow to enter drains or water courses.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Colourless.
Odour	: Characteristic.
Odour threshold	: No data available
pH solution	: 11 - 12
Crystallization temperature	: < -15 °C
Flash point	: Not applicable
Vapour pressure	: 23 hPa (as water)
Density	: 1,48 kg/l (25°C)
Solubility	: Completely soluble in water.
Log Pow	: < 1
Decomposition temperature	: No data available
Explosive properties	: not explosive.
Oxidising properties	: not oxidising.

9.2. Other information

Other properties	: Substance has basic reaction.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Substance has basic reaction. Reacts violently with (strong) acids.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

May react violently with acids.

10.4. Conditions to avoid

Temperatures lower than -10°C. Avoid high temperatures.

10.5. Incompatible materials

Reactive or incompatible with the following materials: strong acids, reducing agents, combustible materials.
Corrosive to brass, bronze, copper and aluminium.

10.6. Hazardous decomposition products

On burning: release of harmful/irritant gases/vapours e.g.: carbon monoxide - carbon dioxide.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Potassium carbonate (584-08-7)	
LD50 oral rat	> 2000 mg/kg bodyweight (experimental value)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (experimental value)
LC50 inhalation rat (mg/l)	> 4,96 mg/l/4h (experimental value)
ATE (oral)	1870 mg/kg

Skin corrosion/irritation : Causes skin irritation.
 Serious eye damage/irritation : Causes serious eye irritation.
 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

Potassium carbonate (584-08-7)	
NOAEL (oral,rat)	2667 mg/kg bodyweight 130 weeks, read-across

Specific target organ toxicity (repeated exposure) : Not classified
 Aspiration hazard : Not classified
 Other information : Likely route of exposure: ingestion, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
 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). Practically non-toxic to fishes (LC50 >100 mg/l). May cause eutrophication. pH shift.

Potassium carbonate (584-08-7)	
LC50 fishes 1	68 mg/l (96 Hours; Salmo Gairdneri / Oncorhynchus Mykiss; Method FIFRA 72-1)
EC50 Daphnia 1	200 mg/l (48 Hours; Daphnia Pulex; Method FIFRA 72-1)

12.2. Persistence and degradability

Optifos	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Potassium carbonate (584-08-7)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

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SECTION 12: Ecological information (continue)

12.3. Bioaccumulative potential

Optifos	
Log Pow	< 1
Bioaccumulative potential	Bioaccumulation: not applicable.

Potassium carbonate (584-08-7)	
Log Kow	Not relevant as the substance is inorganic, considered to be low (based on high water solubility)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

Optifos	
Ecology - soil	Soluble in water.

Potassium carbonate (584-08-7)	
Ecology - soil	Soluble in water.

12.5. Results of PBT and vPvB assessment

Potassium carbonate (584-08-7)	
This substance/mixture does not meet the PBT criteria of REACH, annex XIII.	
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.	

12.6. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

EURLW code	: 06 03 14 - solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13 15 01 10* - packaging containing residues of or contaminated by dangerous substances <i>Depending on branch of industry and production process, also other EURL codes may be applicable</i>
Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: This material and its container must be disposed of in a safe way. Do not discharge into drains or rivers. Empty and rinsed containers can be disposed as non-hazardous material or be returned for recycling.
Waste disposal recommendations	: Use appropriate containment to avoid environmental contamination. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.
Additional information	: Hazardous waste (91/689/EEC).

SECTION 14: Transport information

No dangerous good in sense of transport regulations.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions
Contains no REACH candidate substance
EURLW code : 06 03 14, 15 01 10*

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out : Potassium carbonate 50%

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SECTION 16: Other information

Version	: 3.0
Revision date	: 09-05-2012
Date of issue	: 25-11-2008
Supersedes	: 25-07-2011
Indication of changes	: All chapters have been modified since the previous version. This safety data sheet is fully revised according to the CLP and REACH regulations.
Data sources	: Information from suppliers ECHA Website: Information on Registered Substances.
Abbreviations and acronyms	: DNEL = Derivative No Effect Level PNEC = Predicted No Effect Concentration REACH = Registration, evaluation and autorisation of chemicals CLP = Classification, labelling and packaging.
Training advice	: Before using/handling the product one must read carefully the MSDS.

Full text of R-, H- and EUH-phrases::

Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
Xi	Irritant

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.