Iperen IPE Liquid | 3 - 9 - 0 + Zn

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

1.1. Product identifier
Product form : Mixtures
Trade name : Iperen IPE Liquid | 3 - 9 - 0 + Zn

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. Industrial use
Use of product : Fertilizer

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]
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

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 displayExtra classification(s) to display
CLP Signal word : -
Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (CLP) : P273 - Avoid release to the environment
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

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

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures
Hazard substances:

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Zinc nitrate	(CAS-No.) 7779-88-6 (EC-No.) 231-943-8	5 - < 10	Ox. Sol. 3, H272 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Phosphoric acid	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	1 - < 3	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Phosphoric acid	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	(10 =<C < 25) Eye Irrit. 2, H319 (10 =<C < 25) Skin Irrit. 2, H315 (C >= 25) Skin Corr. 1B, H314

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 the victim into fresh air. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Unconscious: maintain adequate airway and respiration. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	:	Wash with plenty of soap and water. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	:	Rinse cautiously with water for several minutes. 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. 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/effects after inhalation	:	Coughing. Dry/sore throat. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Following symptoms may appear later: respiratory difficulties, risk of lung oedema.
Symptoms/effects after skin contact	:	May cause a (mild) irritation. Symptoms may include: red skin.
Symptoms/effects after eye contact	:	May cause irritation to the eyes. Symptoms may include: visual disturbances, lacrimation.
Symptoms/effects after ingestion	:	Nausea. Vomiting. Cramps/uncontrolled muscular contractions.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Follow the advices in chapter 4.1.

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	:	Non combustible.
Explosion hazard	:	No direct explosion hazard.
Hazardous decomposition products in case of fire	:	On heating/burning: release of toxic and corrosive gases/vapours ammonia nitrous vapours carbon monoxide - carbon dioxide

5.3. Advice for firefighters

Precautionary measures fire	:	Exposure to fire/heat: keep upwind, consider evacuation and have neighbourhood close doors and windows.
Firefighting instructions	:	Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray.
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.
Other information	:	Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Avoid all eye 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 adviced in section 8.
Emergency procedures	:	Mark the danger area. Keep containers closed. Wash contaminated clothes. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

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

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	:	Contain released substance, pump into suitable containers. Stop leaks if possible.
Methods for cleaning up	:	Take up liquid spill into absorbent material, e.g.: dry sand/earth. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
Other information	:	Use corrosionproof equipment. Use non-corrodable disposal containers. 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	:	Carry operations in the open air/under local exhaust or at sufficient ventilation to keep airborne levels below recommend/statutory exposure levels. Wear protective gloves/protective clothing/eye protection as adviced in section 8. Avoid contact with skin and eyes. 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. Always wash hands after handling the product. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.
Storage conditions	:	Store in original container.
Incompatible products	:	Do not store together with strong bases and strong oxidizing agents.
Incompatible materials	:	May be corrosive to some metals.
Storage temperature	:	0 - 30 °C
Information on mixed storage	:	Keep away from: (strong) bases, strong oxidizing agents.
Storage area	:	Store in a cool area. Store in a dry area. Protect against frost. Protect from sunlight. Meet the legal requirements.
Special rules on packaging	:	Special or additional requirements: closing, correctly labelled, meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	:	Suitable material: polyethylene, polypropylene, stainless steel Material to avoid: aluminium, copper, lead, zinc, iron

7.3. Specific end use(s)
Fertilizers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid (7664-38-2)		
EU	IOELV TWA (mg/m³)	1 mg/m³ EU; Time-weighted average exposure limit 8 h;
EU	IOELV STEL (mg/m³)	2 mg/m³ EU; Short time value;

8.2. Exposure controls

Appropriate engineering controls : Good practice advice: Care for eyewash stations at the workplace. Ensure good ventilation of the work station.

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

Hand protection : Gloves

Material selection gloves : Good resistance gives: butyl rubber, nitrile rubber Take advice to your gloves' supplier

Type	Material	Permeation	Thickness (mm)	Standard
Reusable gloves	Butyl rubber	6 (> 480 min)	0.7	EN 374
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 min)	0.4	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.

Other information : Avoid contact with contaminated tools and objects. Regular cleaning of equipment, work area and clothing. Training staff on good practice. Use good personal hygiene practices.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Colour	:	Black. dark brown.
Odour	:	Mild odour.
Odour threshold	:	No data available

pH	:	2 - 4
Crystallization temperature	:	-5 °C
Explosive limits	:	No data available
Vapour pressure	:	2300 hPa (as water)
Density	:	1.18 kg/l
Solubility	:	Water: completely soluble in water
Log Pow	:	No data available
Decomposition temperature	:	>= 60 °C
Viscosity, kinematic	:	No (test)data available
Explosive properties	:	Not explosive.
Oxidising properties	:	Not oxidising.

9.2 Other information
Additional information : Refer to product datasheet

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions. May be give slightly sedimentation after some time.

10.3. Possibility of hazardous reactions
No dangerous reactions known.

10.4. Conditions to avoid
Avoid high temperatures. Keep out of frost.

10.5. Incompatible materials
Reactive or incompatible with the following materials: strong bases. Halogens. May be corrosive to some metals.

10.6. Hazardous decomposition products
On burning: release of toxic and corrosive gases/vapours (nitrous vapours, ammonia, carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

Phosphoric acid (7664-38-2)	
LD50 oral rat	300 - 2000 mg/kg (75% H3PO4, Rat OECD 423)
LD50 dermal rat	No specific data
LC50 inhalation rat (mg/l)	No specific data
Zinc nitrate (7779-88-6)	
LD50 oral rat	1330 mg/kg (Rat)

Skin corrosion/irritation : Slightly irritant but not relevant for classification
(Based on available data, the classification criteria are not met). pH: 2 - 4
Serious eye damage/irritation : Slightly irritant but not relevant for classification
(Based on available data, the classification criteria are not met). pH: 2 - 4
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (The selected raw materials are no reason for classification)
Carcinogenicity : Not classified (The selected raw materials are no reason for classification)
Reproductive toxicity : Not classified (The selected raw materials are no reason for classification)
STOT-single exposure : Not classified (The selected raw materials are no reason for classification)
STOT-repeated exposure : Not classified (The selected raw materials are no reason for classification)

Phosphoric acid (7664-38-2)	
LOAEL (oral, rat, 90 days)	250 mg/kg bodyweight/day (OECD 422)
LOAEL (dermal, rat/rabbit, 90 days)	No data available
LOAEL (inhalation, rat, gas, 90 days)	No data available
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight/day (OECD 422)

Aspiration hazard : Not classified (The selected raw materials are no reason for classification)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general:
Harmful to aquatic life with long lasting effects.
The mineral elements (nutrients) contained in this product are essential for healthy plant growth, but may be harmful in large quantities to wildlife, aquatic organisms or sensitive plants. It is therefore necessary to minimize the amount of product released into the environment, except as part a rational fertilization program for the plants, preferably after a test for soil and/or plant issues.

Ecology - water:
Harmful to aquatic life with long lasting effects.

Phosphoric acid (7664-38-2)	
LC50 fish 1	3 - 3.25 mg/l Lepomis macrochirus
EC50 Daphnia 1	> 100 mg/l (OECD 202)
NOEC chronic algae	100 mg/l Desmodesmus subspicatus, OECD201
Zinc nitrate (7779-88-6)	
LC50 fish 1	2.61 mg/l (LC50; 96 h)
EC50 Daphnia 1	0.068 mg/l (EC50; 48 h)
Threshold limit algae 1	< 0.12 mg/l (EC50)

12.2. Persistence and degradability

Iperen IPE Liquid | 3 - 9 - 0 + Zn	
Persistence and degradability	The metal ions which are the result of the degradation of this product can not be degraded.
Phosphoric acid (7664-38-2)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Zinc nitrate (7779-88-6)	
Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

Iperen IPE Liquid | 3 - 9 - 0 + Zn	
Bioaccumulative potential	Not established.
Phosphoric acid (7664-38-2)	
Log Pow	-0.77 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

Iperen IPE Liquid | 3 - 9 - 0 + Zn	
Ecology - soil	Soluble in water.
Phosphoric acid (7664-38-2)	
Ecology - soil	Solubility in water.

12.5. Results of PBT and vPvB assessment

Iperen IPE Liquid | 3 - 9 - 0 + Zn
This mixture does not meet the PBT- and/or vPvB- criteria of REACH regulation, annex XIII

12.6. Other adverse effects
Other adverse effects : May cause eutrophication.
Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods
European List of Waste (LoW) code:
06 10 02* - wastes containing dangerous substances
15 01 10* - packaging containing residues of or contaminated by dangerous substances
Depending on branch of industry and production process, also other EURAL codes may be applicable

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

Waste treatment methods:
Do not discharge into drains or rivers. 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.

Product/Packaging disposal recommendations:
Remove waste in accordance with local and/or national regulations. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

Additional information:
The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

Ecology - waste materials:
Avoid release to the environment.

SECTION 14: Transport information

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

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
Other information : No supplementary information available

14.6. Special precautions for user
No data available

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

15.2. Chemical safety assessment
The chemical safety assessment has not been finalized

SECTION 16: Other information

Version : 1.0 according to Regulation (EU) 2015/830
Revision date : 23/03/2017
Date of issue : 23/03/2017
Indication of changes : Not applicable.

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
STP	Sewage treatment plant

Data sources : Information from suppliers.
ECHA Website: Information on Registered Substances. BIG-database

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging. 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
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Ox. Sol. 3	Oxidising Solids, Category 3
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H272	May intensify fire; oxidiser
H290	May be corrosive to metals
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
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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.