

**SECTION 1: Identification of the substance/mixture and of the company/undertaking \*\*\*****1.1. Product identifier****Trade name \*\*\***

Phosphoric acid 75% FG E 338

REACH-Registration no. 01-2119485924-24-XXXX

**Use of the substance/mixture**

Food additive

**1.2. Details of the supplier of the safety data sheet****Address****Brouwland**

Korpelsesteenweg 86 B-3581 Beverlo - Belgium

Tel. +32 11 40 14 08

Fax. +32 11 89 03 09

[contact@brouwland.com](mailto:contact@brouwland.com)[www.brouwland.com](http://www.brouwland.com)**1.4. Emergency telephone number**

National poisoning information center (NVIC) +31 (0) 30 274 8888

Only for the purpose of informing medical personnel in cases of accidental intoxications.

**SECTION 2: Hazards identification \*\*\*****2.1. Classification of the substance or mixture****Classification (Regulation (EC) No. 1272/2008)**

Met. Corr. 1 H290

Acute Tox. 4 H302

Skin Corr. 1B H314

**2.2. Label elements****Labelling according to regulation (EC) No 1272/2008****Hazard pictograms \*\*\***

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**Signal word**

Danger

**Hazard statements**

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

**Precautionary statements**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

**Further supplemental information**

For professional users only.

**2.3. Other hazards****PBT and vPvB**

You find the results of PBT and vPvB assessment in section 12.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous ingredients****Phosphoric acid**

CAS No.	7664-38-2
EINECS no.	231-633-2
REACH-Registration no	01-2119485924-24-XXXX
Concentration	appr. 75 %

Met. Corr. 1	H290
Acute Tox. 4	H302
Skin Corr. 1B	H314

Complete text of H-phrases in Chapter 16.

**SECTION 4: First aid measures**

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**4.1. Description of first aid measures****General information**

Remove affected person from danger area, lay him down. Remove contaminated, soaked clothing immediately and dispose of safely. Irregular breathing/no breathing: artificial respiration. If the patient is likely to become unconscious, place and transport in stable sideways position.

**After inhalation**

Remove the casualty into fresh air and keep him calm. Summon a doctor immediately.

**After skin contact**

Wash immediately with plenty of water for several minutes. Summon a doctor immediately.

**After eye contact**

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Summon a doctor immediately.

**After ingestion**

Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Summon a doctor immediately.

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

Causes burns.

Risk of pneumonia; Risk of stomach perforation

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

Keep under medical supervision for at least 48 hours.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide, Water spray jet, Dry powder, Foam, Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

**Non suitable extinguishing media**

Full water jet

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

Reactions with metals, with evolution of hydrogen. In the event of fire the following can be released: Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>); Phosphorus trihydride (phosphine)

**5.3. Advice for firefighters**

Use self-contained breathing apparatus. Wear full protective suit.

Cool endangered containers with water spray jet. Collect contaminated fire-fighting water separately, must not be discharged into the drains.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective clothing. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. High risk of slipping due to leakage/spillage of product.

**6.2. Environmental precautions**

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil. Prevent spread over a wide area (e.g. by containment or oil barriers).

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

Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

Neutralization agent use. When picked up, treat material as prescribed under Section 13 "Disposal".

**6.4. Reference to other sections**

Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Keep container tightly closed. Handle and open container with care. Avoid formation of aerosols.

Provide

good ventilation of working area (local exhaust ventilation if necessary). When diluting, always stir product into water.

Take off immediately all contaminated clothing. Avoid contact with skin and eyes. Keep separated from food-stuffs and feed-stocks. At work do not eat, drink, smoke or take drugs. Wash hands before breaks and after work. Do not inhale gases/vapours/aerosols.

**Advice on protection against fire and explosion**

No special measures required.

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

Provide acid-resistant floor. Keep only in original packaging.

Do not store together with: Alkalis, Reducing agents, Metals

storage category TRGS 510

8 B

Not combustible corrosive hazardous

substances

Keep container tightly closed and in a well-ventilated place. Protect from heat/overheating.



## 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Derived No/Minimal Effect Levels (DNEL/DMEL)

##### Phosphoric acid

DNEL

Conditions	Worker	Long term	inhalative	Local effects
Concentration	2,92	mg/m <sup>3</sup>		

DNEL

Conditions	General	Long term	Inhalative	Local effects
Concentration	Population 0,73	mg/m <sup>3</sup>		

### 8.2. Exposure controls

#### Respiratory protection in accordance with DIN EN 136 / DIN EN 140 / DIN EN 143 / DIN EN 149

Breathing apparatus in the event of aerosol or mist formation. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Short term: filter apparatus, combination filter E-P2; Short term: filter apparatus, combination filter B-P2

#### Hand protection in accordance with DIN EN 374

Appropriate Material	Chloroprene
Material thickness	>= 0,6 mm
Breakthrough time	>= 480 min

#### Eye protection in accordance with DIN EN 166

Tightly fitting safety glasses

#### Body protection in accordance with DIN EN 465

Acid-resistant protective clothing

## SECTION 9: Physical and chemical properties

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

#### Appearance

Form	liquid
Colour	colourless

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055.054.1-055.059.1 Brewferm® Phosphoric acid

**Odour**

odourless

**Odour threshold**

Remarks

No data available

**pH value**

Value

&lt;

1

Concentration/H<sub>2</sub>O

23

g/l

Temperature

20

°C

**Melting point/freezing point**

Value

appr. -18

°C

**Initial boiling point and boiling range**

Value

appr. 135

°C

**Flash point**

Remarks

Not applicable

**Evaporation rate**

Remarks

No data available

**Flammability (solid, gas)**

Not ignitable

**Upper/lower flammability or explosive limits**

Remarks

Not applicable

**Vapour pressure**

Value

0,04

Temperature

50

°C

hPa

**Vapour density**

Value

3,4

**Relative density**

Value

1,58

Temperature

20

°C

g/cm<sup>3</sup>**Solubility(ies)**

Medium

Water

Remarks

Completely miscible

**Partition coefficient: n-octanol/water**

Not applicable

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**Auto-ignition temperature**

Remarks Not applicable

**Decomposition temperature**

Remarks No data available

**Viscosity**

Remarks No data available

**Explosive properties**

Remarks This product is not potentially explosive.

**Oxidising properties**

evaluation not oxidizing

**9.2. Other information**

No additional information available.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

see Possibility of hazardous reactions

**10.2. Chemical stability**

No decomposition if used as prescribed.

**10.3. Possibility of hazardous reactions**

Corrosive to metals. Reactions with reducing agents. Reactions with alkalies. Reactions with metals, with evolution of hydrogen.

**10.4. Conditions to avoid**

To avoid thermal decomposition do not overheat.

**10.5. Incompatible materials**

Reducing agents, metals, Alkalies, Ammonia

**10.6. Hazardous decomposition products**

Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>), Hydrogen

**SECTION 11: Toxicological information \*\*\*****11.1. Information on toxicological effects****Acute oral toxicity (Components) \*\*\***

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**Phosphoric acid**

Species	rat	
LD50	>= 300	mg/kg
Methd	WoE approach	

**Acute dermal toxicity (Components)****Phosphoric acid**

Species	rabbit	
LD50	2740	mg/kg

**Acute inhalative toxicity (Components)****Phosphoric acid**

No information available.

**Skin corrosion/irritation**

evaluation corrosive  
Corrosive action on the skin and mucous membrane.

**Serious eye damage/irritation**

evaluation strongly corrosive

**Sensitization (Components)****Phosphoric acid**

not investigated - substance is corrosive

**Mutagenicity (Components)****Phosphoric acid**

Based on available data, the classification criteria are not met.

**Carcinogenicity (Components)****Phosphoric acid**

Based on available data, the classification criteria are not met.

**Reproduction toxicity (Components)****Phosphoric acid**

Based on available data, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT)****Single exposure**

May cause respiratory irritation.

**Repeated exposure**

No data available

**Aspiration hazard**

No information available.

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**Other information**

Strong caustic effect in the mouth and throat and danger of perforation of the esophagus and stomach.

**SECTION 12: Ecological information \*\*\*****12.1. Toxicity****Fish toxicity (Components) \*\*\*****Phosphoric acid**

Species	Gambusia affinis		
LC50	138		mg/l
Duration of exposure	96	h	

**Daphnia toxicity (Components)****Phosphoric acid**

Species	Daphnia magna		
EC50	> 100		mg/l
Duration of exposure	48	h	
Method	OECD 202		
Remarks	Static system		
Species	Daphnia magna		
NOEC	56		mg/l
Duration of exposure	48	h	
Method	OECD 202		

**Algae toxicity (Components)****Phosphoric acid**

Species	Desmodesmus subspicatus		
EC50	> 100		mg/l
Duration of exposure	72	h	
Method	OECD 201		
Remarks	Static system		
Species	Desmodesmus subspicatus		
NOEC	100		mg/l
Duration of exposure	72	h	
Method	OECD 201		

**Bacteria toxicity (Components)****Phosphoric acid**

Species	activated sludge		
EC50	270		mg/l

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**12.2. Persistence and degradability****Biodegradability (Components)****Phosphoric acid**

Inorganic product, cannot be eliminated from the water by biological purification processes.

**12.3. Bioaccumulative potential****Partition coefficient: n-octanol/water**

Not applicable

**12.4. Mobility in soil**

Will not adsorb on soil.

**12.5. Results of PBT and vPvB assessment**

No valuation for anorganic substances necessary.

**12.6. Other adverse effects****Behaviour in environment compartments**

Harmful effect due to pH shift. Can contribute to eutrophication of waters.

**Behaviour in sewers [waste treatment plants]**

The product is an acid. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations for the product**

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

**Disposal recommendations for packaging**

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

**SECTION 14: Transport information****Land transport ADR/RID**

14.1. UN number	1805
14.2. UN proper shipping name	PHOSPHORIC ACID, SOLUTION
14.3. Transport hazard class(es)	8

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Label	8
14.4. Packing group	III
14.5. Environmental hazards	-
Tunnel restriction code	E
14.6. Special precautions for user	No information available.
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	No information available.

## Marine transport IMDG/GGVSee

14.1. UN number	1805
14.2. UN proper shipping name	PHOSPHORIC ACID, SOLUTION
14.3. Transport hazard class(es)	8
14.4. Packing group	III
14.5. Environmental hazards	-
EmS	F-A, S-B
14.6. Special precautions for user	No information available.
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	No information available.

## Air transport ICAO/IATA

14.1. UN number	1805
14.2. UN proper shipping name	PHOSPHORIC ACID, SOLUTION
14.3. Transport hazard class(es)	8
14.4. Packing group	III
14.5. Environmental hazards	-
14.6. Special precautions for user	No information available.
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	No information available.

## SECTION 15: Regulatory information

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

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**Classification according to Betriebssicherheitsverordnung (BetrSichV)**

not applicable

**SVHC**

The product does not contain substances of very high concern (SVHC).

**Registration status****Phosphoric acid**

AICS (Australian Inventory of Chemical Substances)	listed
DSL (Canada)	listed
IECSC (China)	listed
EINECS listed	
ENCS (Japan)	listed
ECL (Korea)	listed
PICCS (Philippines)	listed
TSCA (USA)	listed

**15.2. Chemical safety assessment**

No information available.

**SECTION 16: Other information****Hazard statements listed in Chapter 3**

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

**CLP categories listed in Chapter 3**

Acute Tox. 4	Acute toxicity, Category 4
Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion, Category 1B

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with:

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This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

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