

**DETERMEX DESINFECTANT**

**SAFETY DATA SHEET**

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

**SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identifier**

Product name : DETERMAX DESINFECTANT

Product code : 102700

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

DETERQUAT range - Disinfectant product

Detergent (descaling) and disinfectant product for the artisanal food processing sector and catering trades, and in the food industry sector.

TP4: Disinfectants for surfaces, materials, equipment and furniture in direct contact with food or animal feed.

Main use category :

Product intended for strictly professional use.

Additional Information :

The product should not be used for applications other than those described in this safety data sheet or in the technical documents for the product.

**Use descriptor system (REACH) :**

SU: 3, 22 - PC: 8.0 - PROC: 4, 5, 7, 8a, 8b, 9, 11, 12, 13

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

Registered company name : IPC.

Address : 10 QUAI MALBERT CS 71 821.29218.BREST.France.

Telephone : 02 98 43 45 44. Fax : 02 98 44 22 53.

www.ipc-sa.com

Distributeur

**1.4. Emergency telephone number : +33 (0)1 45 42 59 59.**

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

**Other emergency numbers**

European emergency call number : 112

**SECTION 2 : HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Substance that is corrosive to metals, Category 1 (Met. Corr. 1, H290).

Acute oral toxicity, Category 4 (Acute Tox. 4, H302).

Skin corrosion, Category 1 (Skin Corr. 1, H314).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

**2.2. Label elements**

Biocidal detergent mixture (see section 15).

Mixture for spray application.

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictograms :



GHS05



GHS07



GHS09

Signal Word :

DANGER

Product identifiers :

EC 231-633-2

PHOSPHORIC ACID

EC 230-525-2

DIDECYLDIMETHYLAMMONIUM CHLORIDE

Hazard statements :

H290

May be corrosive to metals.

**DETERMEX DESINFECTANT**

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H410	Very toxic to aquatic life with long lasting effects.
Precautionary statements - Prevention :	
P260	Do not breathe dust, mist, vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
Precautionary statements - Response :	
P301 + P330 + P331	IF SWALLOWED: Immediately call a physician or a POISON CENER. Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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 or a doctor.
P390	Absorb spillage to prevent material damage.
Precautionary statements - Storage :	
P406	Storing in a container resistant to corrosion
Precautionary statements - Disposal :	
P501	Dispose of contents and container to approved waste disposal facility in accordance with national regulations.

**2.3. Other hazards**

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances > = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2. Mixtures**

**Composition :**

Identification	(EC) 1272/2008	Note	%
INDEX: 015_011_00_6 CAS: 7664-38-2 EC: 231-633-2 REACH: 01-2119485924-24-0005  PHOSPHORIC ACID	GHS07, GHS05 Dgr Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1B, H314	B [1]	10 <= x % < 25
INDEX: 612_131_00_6 CAS: 7173-51-5 EC: 230-525-2  DIDECYLDIMETHYLAMMONIUM CHLORIDE	GHS06, GHS05, GHS09 Dgr Acute Tox. 3, H301 Skin Corr. 1B, H314 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 1		2.5 <= x % < 10
INDEX: 1503 CAS: 68439-50-9  ALCOHOLS, C12-14, ETHOXYLATED (7 - 7.5 EO)	GHS05 Dgr Eye Dam. 1, H318 Aquatic Chronic 3, H412		2.5 <= x % < 10
INDEX: 603-117-00-0 CAS: 67-63-0 EC: 200-661-7 REACH: 01-2119457558-25-XXXX  PROPAN-2-OL	GHS02, GHS07 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1]	0 <= x % < 2.5

**DETERMEX DESINFECTANT**

**Specific concentration limits:**

Identification	Specific concentration limits	ATE
INDEX: 015_011_00_6 CAS: 7664-38-2 EC: 231-633-2 REACH: 01-2119485924-24-0005  PHOSPHORIC ACID	Skin Corr. 1B: H314 C>= 25% Skin Irrit. 2: H315 10% <= C < 25% Eye Dam. 1: H318 C>= 25% Eye Irrit. 2: H319 10% <= C < 25%	oral: ATE = 300 mg/kg BW
INDEX: 612_131_00_6 CAS: 7173-51-5 EC: 230-525-2  DIDECYLDIMETHYLAMMONIUM CHLORIDE		dermal: ATE = 3342 mg/kg BW oral: ATE = 238 mg/kg BW
INDEX: 1503 CAS: 68439-50-9  ALCOHOLS, C12-14, ETHOXYLATED (7 - 7.5 EO)	Eye Dam. 1: H318 C>= 3% Eye Irrit. 2: H319 1% <= C < 3%	

**Information on ingredients :**

(Full text of H-phrases: see section 16)

[1] Substance for which maximum workplace exposure limits are available.

**SECTION 4 : FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

Keep the packaging with the label and/or the instructions available.

**4.1. description of first aid measures**

In case of disturbances of consciousness, place the subject in the lateral safety position (lying on his side); call 112.

INTERVENE VERY QUICKLY - ALERT A DOCTOR - NEVER MAKE DRINK OR NEVER INDUCE VOMITING IF THE PATIENT IS UNCONSCIOUS OR HAS CONVULSIONS.

**In the event of exposure by inhalation :**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice immediately if symptoms occur and/or large quantities have been inhaled.

**In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

Remove contact lenses, if present and easy to do. Continue rinsing.

**In the event of splashes or contact with skin :**

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

Remove contaminated clothing and wash before reuse. Rinse skin with plenty of water for 15 minutes. In severe cases or if you feel unwell, consult a doctor.

**In the event of swallowing :**

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water, administer activated medical charcoal and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

After contact with the skin :

Corrosive to the skin. Causes severe burns. Risk of ulceration of the skin.

After contact with the eyes :

Corrosive to eyes. Risk of serious permanent eye damage if the product is not removed quickly. Vapor may cause eye irritation. Tears.

If swallowed :

Severe burns of the mouth and throat. Ingestion of a large amount can cause the following effects: the danger of perforation of the esophagus and stomach.

In case of inhalation :

By spraying, generation of particles, dust, vapors, mists, which can irritate the respiratory tract.

---

**DETERMEX DESINFECTANT**

---

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

Endoscopy or gastric lavage may be considered but may cause serious damage to the stomach or esophagus.

---

**SECTION 5 : FIREFIGHTING MEASURES**

Non-flammable.

**5.1. Extinguishing media**

**Suitable methods of extinction**

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- multipurpose ABC powder
- carbon dioxide (CO<sub>2</sub>)
- foam
- dry chemical agents

**Unsuitable methods of extinction**

In the event of a fire, do not use :

- water jet

Do not use pressurized water jet may disperse and spread the fire.

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

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)
- nitrogen oxide (NO)
- hydrogen (H<sub>2</sub>)
- phosphorus oxides (P<sub>x</sub>O<sub>y</sub>)

Because of its corrosive effect on many metals, action that is accompanied by the release of hydrogen may be a secondary source of fire and explosion.

**5.3. Advice for firefighters**

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Fire residues and contaminated extinguishing water must be disposed of according to local regulations in force.

Use self-contained breathing apparatus. Complete anti-acid protection equipment. Anti-acid boots. Anti-acid protective gloves. Please refer to section 8.

---

**SECTION 6 : ACCIDENTAL RELEASE MEASURES**

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

Consult the safety measures listed under headings 7 and 8.

**For non first aid worker**

Avoid any contact with the skin and eyes.

Keep bystanders out of danger

No action shall be taken involving any personal risk or without suitable training. Evacuate the area.

If quantities are large, evacuate personnel using only trained operators equipped with protective equipment.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

**6.2. Environmental precautions**

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

All spills should be directed to a wastewater treatment plant

All contaminated materials should be considered as waste for disposal according to local regulations.

## DETERMEX DESINFECTANT

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

Neutralise with an alkaline decontaminant, such as an aqueous solution of sodium carbonate or similar.

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

Clean preferably with a detergent, do not use solvents.

Possibility of neutralizing effects : the neutralization is possible with a solution of sodium carbonate (CAS No. 497-19-8) of 1 to 10% (w/w). The use of very hot water (> 50°C) can speed up the cleaning of the product.

### 6.4. Reference to other sections

No data available.

## SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

### 7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

When spraying, or when forming mist, vapors, dusts, wear respiratory protection, see section 8.

NEVER pour water into the product but ALWAYS the product into the water.

Dilutions or neutralizations are highly exothermic.

### Fire prevention :

Handle in well-ventilated areas.

Prevent access by unauthorised personnel.

### Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Where the personnel must carry out work in a booth, whether for spraying or otherwise, the ventilation may be inadequate to control particles and solvent vapors in every case.

It is therefore recommended that personnel wear masks with a compressed air supply during spraying operations until the concentration of particles and solvent vapors has fallen below the exposure limits.

Packages which have been opened must be reclosed carefully and stored in an upright position.

### Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

Never open the packages under pressure.

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

To keep the quality of the product, not store in the heat and nor in the sun

Do not store with oxidizing agents or alkalis (lyes).

Keep away from chlorites and hypochlorites.

Refer to section 10.5 for incompatibilities.

### Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from food and drink, including those for animals.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Recommended storage temperature: < 45°C

### Packaging

Always keep in packaging made of an identical material to the original.

Recommended types of packaging :

- Vats

- Bottles

- Drums

Suitable packaging materials :

- Plastic

- Compatible grades HDPE.

**DETERMEX DESINFECTANT**

Unsuitable packaging materials :

- Wood
- Cardboard
- Metal
- Paper bag
- Textile

Store in a corrosion-resistant packaging.

**7.3. Specific end use(s)**

The mixture is a biocidal product. It must not be used for applications other than those described in this safety data sheet and in the technical documents concerning the product.

Product intended for strictly professional use.

Disinfectant for food areas: food shops and restaurants, agro-food industries (dairy, meat, cereals, non-alcoholic beverages and alcoholic beverages, creameries, butter ...).

Always read the label or the instructions before use, and follow all the instructions given there.

Respect the conditions of use of the product (concentration, contact time, ...).

Do not mix with other detergents or biocidal products.

**SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

**Occupational exposure limits :**

- European Union (2022/431, 2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
7664-38-2	1	-	2	-	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7664-38-2	1 mg/m3	3 mg/m3			
67-63-0	200 ppm	400 ppm		A4; BEI	

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes
7664-38-2		2E mg/m <sup>3</sup>		2(I)
67-63-0		200 ppm 500 mg/m <sup>3</sup>		2(II)

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
7664-38-2	0.2	1	0.5	2	-	-
67-63-0	-	-	400	980	-	84

- Switzerland (Suva 2021) :

CAS	VME	VLE	Valeur plafond	Notations
7664-38-2	2 ppm	4 ppm		
67-63-0	200 ppm 500 mg/m <sup>3</sup>	400 ppm 1000 mg/m <sup>3</sup>		

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7664-38-2	1 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>			
67-63-0	400 ppm 999 mg/m <sup>3</sup>	500 ppm 1250 mg/m <sup>3</sup>			

**Derived no effect level (DNEL) or derived minimum effect level (DMEL):**

PROPAN-2-OL (CAS: 67-63-0)

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Workers.**

Dermal contact.  
Long term systemic effects.  
888 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
500 mg of substance/m<sup>3</sup>

**DETERMEX DESINFECTANT**

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Consumers.**

Ingestion.  
Long term systemic effects.  
26 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Dermal contact.  
Long term systemic effects.  
319 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
89 mg of substance/m3

**PHOSPHORIC ACID ...% (CAS: 7664-38-2)**

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Workers.**

Inhalation.  
Long term local effects.  
1 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Short term local effects.  
2 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
10.7 mg of substance/m3

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Consumers.**

Ingestion.  
Long term systemic effects.  
4.57 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term local effects.  
0.36 mg of substance/m3

**Predicted no effect concentration (PNEC):**

**PROPAN-2-OL (CAS: 67-63-0)**

Environmental compartment:  
PNEC :

Soil.  
28 mg/kg

Environmental compartment:  
PNEC :

Fresh water.  
140.9 mg/l

Environmental compartment:  
PNEC :

Sea water.  
140.9 mg/l

Environmental compartment:  
PNEC :

Fresh water sediment.  
552 mg/kg

Environmental compartment:  
PNEC :

Marine sediment.  
552 mg/kg

Environmental compartment:  
PNEC :

Waste water treatment plant.  
2251 mg/l

**8.2. Exposure controls**

**Personal protection measures, such as personal protective equipment**

## DETERMEX DESINFECTANT

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

### - Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

When spraying, wear a face shield in accordance with standard EN166.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

### - Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

Recommended properties :

- Impervious gloves in accordance with standard EN ISO 374-2 (Type B)
- Nitrile NBR (breakthrough time > 480 min; glove thickness  $\geq$  0.11 mm)

### - Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of spraying, wear protective clothing against chemical risks and against sprayed liquid (type 4) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Suitable type of protective boots :

In the event of minor spatter, wear protective boots or half-boots against chemical risks in accordance with standard EN13832-2.

In the event of prolonged contact, wear boots or half-boots with liquid-chemical-resistant and waterproof soles and uppers in accordance with standard EN13832-3.

In the event of spraying, wear waterproof boots or half-boots made of nitrile rubber in accordance with standard EN13832-3.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

### - Respiratory protection

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- E2 (Yellow)
- B2 (Grey)

Particle filter according to standard EN143 :

- P3 (White)

Use respiratory protection at high exposure levels for example during the crossing of the limit value at the workplace

In case of insufficient ventilation, wear a filter cartridge respirator (filter B.E).

If spray use, risk of excessive fog production, dust or vapors, it is advisable to use approved respiratory protective equipment.



**DETERMEX DESINFECTANT**

**- Thermal risks**

Violent and exothermic reaction when adding water to a concentrated acid.

Dilutions or neutralizations are highly exothermic.

**Exposure controls linked to environmental protection**

Do not dispose of the biocidal product in drains (sinks, toilets, etc.), gutters, waterways, in the open field or in any other outdoor environment.

The discharge of large amounts into drains, pipelines or the aquatic environment may lead to a sharp decrease in the pH value, which is harmful to aquatic organisms.

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**

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

**Physical state**

Physical state : Fluid liquid.

**Colour**

Color : Clear colorless to light yellow

**Odour**

Odour threshold : Not stated.

**Melting point**

Melting point/melting range : Not relevant.

**Freezing point**

Freezing point / Freezing range : Not stated.

**Boiling point or initial boiling point and boiling range**

Boiling point/boiling range : Not relevant.

**Flammability**

Flammability (solid, gas) : Not stated.

**Lower and upper explosion limit**

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

**Flash point**

Flash point interval : Not relevant.

**Auto-ignition temperature**

Self-ignition temperature : Not relevant.

**Decomposition temperature**

Decomposition point/decomposition range : Not relevant.

**pH**

pH (aqueous solution) : (1%) = 2.00 +/- 1.00

pH : Not stated.  
Strongly acidic.

**Kinematic viscosity**

Viscosity : Not stated.

**Solubility**

Water solubility : Soluble.

Fat solubility : Not stated.

**Partition coefficient n-octanol/water (log value)**

Partition coefficient: n-octanol/water : Not stated.

**Vapour pressure**

Vapour pressure (50°C) : Not relevant.

**Density and/or relative density**

Density : = 1.12 g/cm<sup>3</sup> +/- 0.02 (20°C)  
Method for determining the density :  
Method A.3 (Relative density) as described in Part A of the Annex to  
Regulation (EC)No 440/2008

**Relative vapour density**

Vapour density : Not stated.

---

**DETERMEX DESINFECTANT**

---

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**9.2.2. Other safety characteristics**

No data available.

---

**SECTION 10 : STABILITY AND REACTIVITY**

**10.1. Reactivity**

Mixture which by chemical action can corrode and even destroy metals.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

**10.4. Conditions to avoid**

Avoid :

- heat
- exposure to light

**10.5. Incompatible materials**

Keep away from :

- bases
- oxydants
- chlorites and hypochlorites
- metals
- alkalis

Do not mix with other disinfectants.

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)
- nitrogen oxide (NO)
- hydrogen (H<sub>2</sub>)
- phosphorus oxides (P<sub>x</sub>O<sub>y</sub>)

Gases and toxic vapors can be freed. Possible release of oxide phosphoreux at high-temperature

In contact with metals (i.e. aluminum), hydrogen gas may be generated (HIGHLY FLAMMABLE).

---

**SECTION 11 : TOXICOLOGICAL INFORMATION**

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

Harmful if swallowed.

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure for up to three minutes.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

**11.1.1. Substances**

**Acute toxicity :**

ALCOHOLS, C12-14, ETHOXYLATED (7 - 7.5 EO) (CAS: 68439-50-9)

Oral route :

LD50 >= 2000 mg/kg

Species : Rat

OECD Guideline 401 (Acute Oral Toxicity)

Dermal route :

LD50 >= 2000 mg/kg

Species : Rabbit

OECD Guideline 402 (Acute Dermal Toxicity)

**DETERMEX DESINFECTANT**

Inhalation route (Vapours) : LC50 >= 1.6 mg/l  
Species : Rat

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)  
Oral route : LD50 = 238 mg/kg  
Species : Rat  
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 = 3342 mg/kg  
Species : Rabbit

PHOSPHORIC ACID ...% (CAS: 7664-38-2)  
Oral route : LD50 = 300 mg/kg  
Species : Rat  
OECD Guideline 423 (Acute Oral toxicity Acute Toxic Class Method)

**Skin corrosion/skin irritation :**

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)  
Corrosivity : Causes severe skin burns.  
Species : Rabbit  
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Effect observed : Overall irritation score  
Species : Rabbit

**Respiratory or skin sensitisation :**

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)  
Buehler Test : Non-sensitiser.  
Species : Guinea pig  
Other guideline

**Germ cell mutagenicity :**

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)  
Mutagenesis (in vivo) : Negative.  
Species : Rat  
OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro) : Negative.

PHOSPHORIC ACID ...% (CAS: 7664-38-2)  
No mutagenic effect.

**Carcinogenicity :**

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)  
Carcinogenicity Test : Negative.  
No carcinogenic effect.

PHOSPHORIC ACID ...% (CAS: 7664-38-2)  
Carcinogenicity Test : Negative.  
No carcinogenic effect.

**Reproductive toxicant :**

PHOSPHORIC ACID ...% (CAS: 7664-38-2)  
No toxic effect for reproduction

## DETERMEX DESINFECTANT

### Specific target organ systemic toxicity - repeated exposure :

PHOSPHORIC ACID ...% (CAS: 7664-38-2)

Oral route :

C = 250 mg/kg bodyweight/day

Species : Rat

Duration of exposure : 90 days

OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

### 11.1.2. Mixture

#### Acute toxicity :

Harmful by ingestion (H302).

#### Skin corrosion/skin irritation :

Corrosive classification is based on an extreme pH value.

Causes burns to the skin. H314.

#### Serious damage to eyes/eye irritation :

Corrosive classification is based on an extreme pH value.

Causes serious eye damage. (H318).

#### Mixture versus substance information

May be corrosive to metals (H290).

### 11.2. Information on other hazards

#### Endocrine disrupting properties

The mixture does not contain ingredients considered to have endocrine disrupting properties according to Article 57, point f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more.

#### Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 67-63-0 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

## SECTION 12 : ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

### 12.1. Toxicity

#### 12.1.1. Substances

ALCOHOLS, C12-14, ETHOXYLATED (7 - 7.5 EO) (CAS: 68439-50-9)

Crustacean toxicity :

NOEC >= 0.77 mg/l

Species : Daphnia magna

PHOSPHORIC ACID ...% (CAS: 7664-38-2)

Crustacean toxicity :

EC50 >= 100 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity :

ECr50 > 100 mg/l

Duration of exposure : 72 h

OECD Guideline 201 (Alga, Growth Inhibition Test)

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)

Fish toxicity :

LC50 = 0.19 mg/l

Factor M = 1

Species : Pimephales promelas

Duration of exposure : 96 h

NOEC = 0.032 mg/l

Species : Danio rerio

Duration of exposure : 35 days

OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test)

## DETERMEX DESINFECTANT

Crustacean toxicity :	EC50 = 0.062 mg/l Factor M = 10 Species : Daphnia magna Duration of exposure : 48 h
	NOEC = 0.010 mg/l Factor M = 1 Species : Daphnia magna Duration of exposure : 21 days OECD Guideline 211 (Daphnia magna Reproduction Test)
Algae toxicity :	ECr50 = 0.026 mg/l Factor M = 10 Species : Pseudokirchnerella subcapitata Duration of exposure : 96 h OECD Guideline 201 (Alga, Growth Inhibition Test)

### 12.1.2. Mixtures

Very toxic to aquatic life with long lasting effects (H410).

### 12.2. Persistence and degradability

#### 12.2.1. Substances

ALCOHOLS, C12-14, ETHOXYLATED (7 - 7.5 EO) (CAS: 68439-50-9)  
Biodegradability : Rapidly degradable.

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)  
Biodegradability : Rapidly degradable.

#### 12.2.2. Mixtures

Surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents.

### 12.3. Bioaccumulative potential

#### 12.3.1. Substances

ALCOHOLS, C12-14, ETHOXYLATED (7 - 7.5 EO) (CAS: 68439-50-9)  
Bioaccumulation : BCF = 12.7

DIDECYLDIMETHYLAMMONIUM CHLORIDE (CAS: 7173-51-5)  
Bioaccumulation : BCF = 81

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

The blend does not contain any ingredients considered persistent, bio-accumulating and toxic (PBT), or very persistent and very bio-accumulating (vPvB) at levels of 0.1% or greater.

### 12.6. Endocrine disrupting properties

The mixture does not contain ingredients considered to have endocrine disrupting properties according to Article 57, point f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more.

### 12.7. Other adverse effects

No data available.

## SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

### 13.1. Waste treatment methods

Do not dispose of the product in drains (sinks, toilets, etc.), gutters, waterways, in the open field or in any other outdoor environment.

#### Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

**DETERMEX DESINFECTANT**

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

All contaminated material must be considered as waste with a view to its elimination according to the regulations in force.

**Soiled packaging :**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :**

15 02 02 \* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

15 01 10 \* packaging containing residues of or contaminated by dangerous substances

06 01 04 \* phosphoric and phosphorous acid

07 06 04 \* other organic solvents, washing liquids and mother liquors

**SECTION 14 : TRANSPORT INFORMATION**

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 [40-20] - ICAO/IATA 2022 [63]).

**14.1. UN number or ID number**

3264

**14.2. UN proper shipping name**

UN3264=CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

(phosphoric acid ...%, didecylidimethylammonium chloride)

**14.3. Transport hazard class(es)**

- Classification :



8

**14.4. Packing group**

II

**14.5. Environmental hazards**

- Environmentally hazardous material :



**14.6. Special precautions for user**

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C1	II	8	80	1 L	274	E2	2	E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	8	-	II	1 L	F-A. S-B	274	E2	Category B SW2	SGG1 SG36 SG49

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	8	-	II	851	1 L	855	30 L	A3 A803	E2
	8	-	II	Y840	0.5 L	-	-	A3 A803	E2

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(didecylidimethylammonium chloride)

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

No data available.

**DETERMEX DESINFECTANT**

**SECTION 15: Regulatory information**

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

**- Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/643 (ATP 16)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/849 (ATP 17)

**- Container information:**

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):  
<https://echa.europa.eu/substances-restricted-under-reach>.

**- Particular provisions :**

No data available.

**- Labelling for detergents (EC Regulation No. 648/2004,907/2006) :**

- 15% or more, but less than 30% of: phosphates
- less than 5% of: amphoteric surfactants
- less than 5% of: non-ionic surfactants
- disinfectants

**- Labelling for biocidal products (Regulation (UE) n° 528/2012) :**

Name	CAS	%	Product-type
DIDECYLDIMETHYLAMMONIUM CHLORIDE	7173-51-5	50.00 g/kg	04

Product-type 4 : Food and feed area.

**15.2. Chemical safety assessment**

No data available.

**SECTION 16 : OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Abbreviations :**

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

---

**DETERMEX DESINFECTANT**

---

STEL : Short-term exposure limit  
TWA : Time Weighted Averages  
TMP : French Occupational Illness table  
TLV : Threshold Limit Value (exposure)  
AEV : Average Exposure Value.  
PC 8 - Biocidal products (e.g. Disinfectants, pest control)  
PROC 11 - Non industrial spraying  
PROC 12 - Use of blowing agents in manufacture of foam  
PROC 13 - Treatment of articles by dipping and pouring  
PROC 4 - Use in batch and other process (synthesis) where opportunity for exposure arises  
PROC 5 - Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)  
PROC 7 - Industrial spraying  
PROC 8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities  
PROC 8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities  
PROC 9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)  
SU 22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)  
SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites  
ADR : European agreement concerning the international carriage of dangerous goods by Road.  
IMDG : International Maritime Dangerous Goods.  
IATA : International Air Transport Association.  
ICAO : International Civil Aviation Organisation  
RID : Regulations concerning the International carriage of Dangerous goods by rail.  
WGK : Wassergefährdungsklasse (Water Hazard Class).  
GHS05 : Corrosion  
GHS07 : Exclamation mark  
GHS09 : Environment  
PBT: Persistent, bioaccumulable and toxic.  
vPvB : Very persistent, very bioaccumulable.  
SVHC : Substances of very high concern.