

# SAFETY DATA SHEET

VIRUDINE PLUS

**LANXESS**  
Energizing Chemistry

57804989

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

### 1.1 Product identifier

**Product name** : VIRUDINE PLUS  
**Hazardous ingredients** : Contains: Alcohols, C9-11, ethoxylated, sulphuric acid, phosphoric acid, iodine

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

**Suitable uses** : disinfectants

### 1.3 Details of the supplier of the safety data sheet

**Supplier** : Antec International Limited  
Windham Road  
Chilton Industrial Estate  
Sudbury / Suffolk - CO10 2XD  
United Kingdom  
  
Telephone: +49 221 8885 2288  
E-mail: [infosds@lanxess.com](mailto:infosds@lanxess.com)

### 1.4 Emergency telephone number

**Telephone number** : 0870 190 6777. National Chemical Emergency Centre

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

**Classification** :  Skin Corr. 1, H314  
STOT RE 2, H373

See Section 16 for the full text of the H statements declared above.


### 2.2 Label elements

**Hazard pictograms** :




**Signal word** : Danger

Contains: Alcohols, C9-11, ethoxylated, sulphuric acid, phosphoric acid, iodine

**Hazard statements** :  H314 - Causes severe skin burns and eye damage.  
H373 - May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

**Prevention** :  Wear protective gloves/clothing and eye/face protection. Do not breathe vapour. Wash hands thoroughly after handling.

**Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or physician. IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

**Storage** : Store locked up.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

### 2.3 Other hazards

**Date of issue** : 2017-06-12

**SECTION 2: Hazards identification**

Other hazards which do not result in classification : None known.

**SECTION 3: Composition/information on ingredients**

Product definition (REACH) : Mixture

Product/ingredient name	Identifiers	%	Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]	Type
Alcohols, C9-11, ethoxylated	CAS: 68439-46-3	10 - ≤25	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318	[1]
sulphuric acid	REACH #: 01-2119458838-20 EC: 231-639-5 CAS: 7664-93-9 Index: 016-020-00-8	≤10	Skin Corr. 1A, H314	[1] [2]
phosphoric acid	REACH #: 01-2119485924-24 EC: 231-633-2 CAS: 7664-38-2 Index: 015-011-00-6	≤10	Met. Corr. 1, H290 Skin Corr. 1B, H314	[1] [2]
iodine	REACH #: 01-2119485285-30 EC: 231-442-4 CAS: 7553-56-2 Index: 053-001-00-3	≤4,5	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 1, H372 Aquatic Acute 1, H400 (M=1) <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

**Specific Concentration limits (Regulation EC) No 1272/2008)**

Product/ingredient name	Identifiers	%	Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
sulphuric acid	REACH #: 01-2119458838-20 EC: 231-639-5 CAS: 7664-93-9 Index: 016-020-00-8	5-15 15-100 5-15	Eye Irrit.2, H319 Skin Corr.1A, H314 Skin Irrit.2, H315
phosphoric acid	REACH #: 01-2119485924-24 EC: 231-633-2 CAS: 7664-38-2 Index: 015-011-00-6	10-25 25-100 10-25	Eye Irrit.2, H319 Skin Corr.1B, H314 Skin Irrit.2, H315

Occupational exposure limits, if available, are listed in Section 8.

Type

- [1] Substance classified with a health or environmental hazard  
 [2] Substance with a workplace exposure limit  
 [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII  
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII  
 [5] Substance of equivalent concern

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

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

See Section 11 for more detailed information on health effects and symptoms.

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

See Section 11 for more detailed information on health effects and symptoms.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.
- Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
sulfur oxides  
phosphorus oxides  
halogenated compounds

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 5: Firefighting measures

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

- Small spill** : Stop leak if without risk. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

### 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

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

- Recommendations** : Not available.

- Industrial sector specific solutions** : Not available.

- Remarks** : Keep away from: Oxidiser  
Keep away from heat and direct sunlight.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Exposure limit values

Ingredient name	Occupational exposure limits
sulphuric acid	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 0,05 mg/m <sup>3</sup> 8 hours. Form: Solution
phosphoric acid	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> STEL: 2 mg/m <sup>3</sup> 15 minutes. TWA: 1 mg/m <sup>3</sup> 8 hours.
iodine	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> STEL: 1,1 mg/m <sup>3</sup> 15 minutes. STEL: 0,1 ppm 15 minutes.

#### Derived effect levels

Ingredient name	Type	Exposure	Value	Population	Effects	Remarks
sulphuric acid	DNEL	Long term Inhalation	0,05 mg/m <sup>3</sup>	Workers	Local	-
	DNEL	Short term Inhalation	0,1 mg/m <sup>3</sup>	Workers	Local	-
phosphoric acid	DNEL	Long term Inhalation	1 mg/m <sup>3</sup>	Workers	Local	-
	DNEL	Short term Inhalation	2 mg/m <sup>3</sup>	Workers	Local	-
iodine	DNEL	Long term Inhalation	0,73 mg/m <sup>3</sup>	Consumers	Local	-
	DNEL	Short term Dermal	0,01 mg/kg bw/day	Human via the environment	Local	-
	DNEL	Long term Dermal	0,01 mg/kg bw/day	Human via the environment	Systemic	-
	DNEL	Short term Dermal	1 mg/m <sup>3</sup>	Human via the environment	Local	-
	DNEL	Long term Dermal	0,07 mg/m <sup>3</sup>	Human via the environment	Systemic	-
<b>Conclusion/Summary</b>		: Not available.				

#### Predicted No Effect Concentration (PNEC)

Ingredient name	Compartment Detail	Value	Method Detail	Remarks
sulphuric acid	Sewage Treatment Plant	8,8 mg/l	Assessment Factors	-
	Sediment	2 µg/kg dwt	Equilibrium Partitioning	-
	Marine water sediment	2 µg/kg dwt	Equilibrium Partitioning	-
	Marine water	0,25 mg/l	Assessment Factors	-
	Fresh water	2,5 µg/l	Assessment Factors	-
iodine	soil	5,95 mg/kg wwt	-	-
	Sewage Treatment Plant	11 mg/l	-	-
	Sediment	3,99 mg/kg wwt	-	-
	Marine water sediment	20,22 mg/kg wwt	-	-
	Marine water	60,01 µg/l	-	-
	Fresh water	18,13 µg/l	-	-
<b>Conclusion/Summary</b>		: Not available.		

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and

## SECTION 8: Exposure controls/personal protection

measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### 8.2 Exposure controls

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.  
Recommended: Tightly-fitting goggles or face shield

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations  
Recommended: (< 1 hour) Polyvinyl chloride - PVC, Polychloroprene - CR, Nitrile rubber - NBR

**Other skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.  
Recommended: Wear acid-resistant protective clothing.

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  
Recommended: Full mask with type ABEK filter

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid. [clear]  
**Colour** : Brown. [Dark]  
**Odour** : Faint odour. iodine [Slight]  
**Odour threshold** : Not available.  
**pH** : 0  
**Melting point** : -2°C (28,4°F)

**SECTION 9: Physical and chemical properties**

<b>Boiling point</b>	: 102°C (215,6°F)
<b>Flash point</b>	: Closed cup: >100°C (>212°F)
<b>Burning time</b>	: Not applicable.
<b>Burning rate</b>	: Not applicable.
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapour pressure</b>	: Not available.
<b>Vapour density</b>	: Not available.
<b>Density</b>	: 1,17 kg/L (20°C)
<b>Relative density</b>	: Not available.
<b>Solubility in water</b>	: Soluble in the following materials: cold water
<b>Partition coefficient: n-octanol/ water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Keep away from heat and flame. Store away from direct sunlight. Keep away from: Oxidiser
<b>10.5 Incompatible materials</b>	: zinc, alkali metals, chlorine, oxidising agents, aluminum, (Pyrophoric), Tin
<b>10.6 Hazardous decomposition products</b>	: In case of fire be aware of formation of corrosive and noxious fumes.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure	Test
Alcohols, C9-11, ethoxylated sulphuric acid phosphoric acid	LD50 Oral	Rat	1100 mg/kg	-	OECD 401 Acute Oral Toxicity
	LD50 Oral	Rat	2140 mg/kg	-	-
	LD50 Oral	Rat	2600 mg/kg *	-	OECD 423 Acute Oral toxicity - Acute Toxic Class Method
iodine	LD50 Oral	Rat	315 mg/kg	-	-



**SECTION 11: Toxicological information**

Alcohols, C9-11, ethoxylated iodine	LD50 Dermal LD50 Dermal	Rabbit Rabbit	2000 to 5000 mg/kg 1425 mg/kg	- -	OECD 401 Acute Oral Toxicity -
sulphuric acid	LC50 Inhalation Dusts and mists	Rat	375 mg/m <sup>3</sup>	4 hours	OECD 403 Acute Inhalation Toxicity
iodine	LC50 Inhalation Dusts and mists	Rat	4,588 mg/l	4 hours	OECD 403 Acute Inhalation Toxicity

**Conclusion/Summary** : phosphoric acid:\* The results refer to active ingredient.75%

**Acute toxicity estimates**

Route	ATE value
Oral	3223,9 mg/kg
Dermal	50176,1 mg/kg
Inhalation (dusts and mists)	161,5 mg/l

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Test	Reversibility
phosphoric acid	Skin - Oedema	Rabbit	2,8	-	-	-
	Skin - Erythema/ Eschar	Rabbit	4	-	-	-
	Skin - Primary dermal irritation index (PDII)	Rabbit	6,6	-	-	-
iodine	Respiratory - Irritant	Human	-	-	-	-

**Conclusion/Summary**

**Skin** : Alcohols, C9-11, ethoxylated:OECD404: irritant (Rabbit)  
 sulphuric acid:Severe corrosive  
 phosphoric acid:corrosive  
 iodine:irritant

**Eyes** : Alcohols, C9-11, ethoxylated:Risk of serious damage to eyes.  
 sulphuric acid:Causes serious eye damage.  
 phosphoric acid:corrosive  
 iodine:Irritant

**Sensitisation**

Product/ingredient name	Route of exposure	Species	Result	Test description
Alcohols, C9-11, ethoxylated	skin	Guinea pig	Not sensitizing	OECD 406 Skin Sensitization

**Conclusion/Summary**

**Skin** : sulphuric acid:No known sensitising effect.  
 iodine:Not sensitizing , OECD 429 Skin Sensitisation: Local Lymph Node Assay

**Respiratory** : sulphuric acid:No known sensitising effect.

**Mutagenicity**



**SECTION 11: Toxicological information**

Product/ingredient name	Test	Experiment	Result
sulphuric acid	-	Experiment: In vitro Subject: Bacteria	Negative
phosphoric acid	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: +/- -	Negative
	OECD 471 Bacterial Reverse Mutation Test / Ames test	Experiment: In vitro Subject: Bacteria Metabolic activation: +/- -	Negative
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian- Animal Cell: Somatic Metabolic activation: +/- -	Negative

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
iodine	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
iodine	Category 1	Not determined	Not determined

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Causes severe burns.
- Ingestion** : No known significant effects or critical hazards.

Delayed and immediate effects as well as chronic effects from short and long-term exposureShort term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
phosphoric acid	Chronic NOAEL Oral	Rat	250 mg/kg	days per week

- General** : May cause damage to organs through prolonged or repeated exposure.

- Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Test	Result	Species	Exposure
Alcohols, C9-11, ethoxylated	-	Acute LC50 8,5 to 11 mg/l Fresh water	Fish - Pimephales promelas	96 hours
sulphuric acid	-	Acute LC50 2,7 to 12 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	-	Acute LC50 16 to 28 mg/l	Fish - Lepomis macrochirus	96 hours
	OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours
phosphoric acid	OECD 201 Alga, Growth Inhibition Test	Acute IC50 >100 mg/l	Algae - Desmodesmus subspicatus	72 hours
	OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours
	OECD 201 Alga, Growth Inhibition Test	Acute IC50 >100 mg/l	Algae - Desmodesmus subspicatus	72 hours
iodine	-	Acute LC50 1,67 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	-	Acute LC50 0,55 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	OECD 201 Alga, Growth Inhibition Test	Acute EC50 0,13 mg/l Fresh water	Algae	72 hours
phosphoric acid	OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Chronic NOEC 56 mg/l	Daphnia - Daphnia magna	48 hours

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Alcohols, C9-11, ethoxylated	-	80 % - Readily - 28 days	-	-

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Alcohols, C9-11, ethoxylated	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
iodine	2,49	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

## SECTION 12: Ecological information

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.  
**vPvB** : Not applicable.

### 12.6 Other adverse effects

**Other adverse effects** : No known significant effects or critical hazards.  
**AOX** : Not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.





**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	UN3264	UN3264	UN3264	UN3264
<b>14.2 UN proper shipping name</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFURIC ACID, PHOSPHORIC ACID)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFURIC ACID, PHOSPHORIC ACID)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFURIC ACID, PHOSPHORIC ACID)	Corrosive liquid, acidic, inorganic, n.o.s. (SULFURIC ACID, PHOSPHORIC ACID)
<b>14.3 Transport hazard class(es)/ Marks</b>	8 	8 	8 	8 
<b>14.4 Packing group</b>	II	II	II	II
<b>14.5 Environmental hazards</b>	No.	No.	No	No
<b>14.6 Special precautions for user/Additional information</b>	<u>Hazard identification number</u> 80	<u>Hazard identification number</u> 80	<u>Emergency schedules (EmS)</u> F-A, S-B	<u>Passenger aircraft</u> 851: 1 L  <u>Cargo aircraft</u> 855: 30 L

## SECTION 14: Transport information

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

### Hazard notes:

Corrosive.

Keep away from foodstuffs, acids and alkalis.

## SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.


Other EU regulations

Seveso Directive

This product is not controlled under the Seveso III Directive.


**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information


 Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
 Skin Corr. 1, H314 STOT RE 2, H373	On basis of test data Calculation method

Full text of abbreviated H statements

 H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

Full text of classifications [CLP/GHS]

**SECTION 16: Other information**

<p> <a href="#">✓</a> Acute Tox. 4, H302            Acute Tox. 4, H312            Acute Tox. 4, H332            Aquatic Acute 1, H400            Eye Dam. 1, H318            Eye Irrit. 2, H319            Met. Corr. 1, H290            Skin Corr. 1, H314            Skin Corr. 1A, H314            Skin Corr. 1B, H314            Skin Irrit. 2, H315            STOT RE 1, H372              STOT RE 2, H373              STOT SE 3, H335         </p>	<p>           ACUTE TOXICITY (oral) - Category 4            ACUTE TOXICITY (dermal) - Category 4            ACUTE TOXICITY (inhalation) - Category 4            ACUTE AQUATIC HAZARD - Category 1            SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1            SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2            CORROSIVE TO METALS - Category 1            SKIN CORROSION/IRRITATION - Category 1            SKIN CORROSION/IRRITATION - Category 1A            SKIN CORROSION/IRRITATION - Category 1B            SKIN CORROSION/IRRITATION - Category 2            SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)            - Category 1            SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)            - Category 2            SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)            (Respiratory tract irritation) - Category 3         </p>
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*The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet and its Annex [if required according to Regulation (EC) 1907/2006 (REACH)] is to describe the products in terms of their safety requirements. The given details do not imply any guarantee concerning the composition, properties or performance.*