

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

### 1.1 Product Identifier

Trade name: **Eco-Forte**

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

Product category: Cleaning Products  
Application: Industrial/Professional use

This product should not be used for applications other than those recommended in Section 1 without first seeking the advice of the supplier.

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

Manufacturer / Importer / Supplier: Houweling Horticulture bv  
Klappolder 104  
2665 LP Bleiswijk  
Nederland  
tel +31 88 1210 400  
[horticulture@houweling.nl](mailto:horticulture@houweling.nl)  
[houweling.com](http://houweling.com)

Further information obtainable from: Product safety department

### 1.4 Emergency telephone number

During office hours: +31 88 1210 400

## SECTION 2\* Hazards identification

### 2.1 Classification of the substance or mixture

Description: Mixture

#### Classification according to Regulation (EC) No 1272/2008

Met. Corr. 1	H290	May be corrosive to metals.
Skin Corr. 1A	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.

#### Ingredients of unknown toxicity

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 8.1%.

#### Ingredients of unknown ecotoxicity

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.3%.

### 2.2 Label elements

The product is classified and labelled according to the CLP Regulation.

#### Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms: GHS05



Signal word: Danger

#### Hazard-determining components of labelling

Ammonium bifluoride

#### Hazard statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

#### Precautionary statements

P234	Keep only in original container.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P331+P310	IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

P303+P361+P353+P310	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediately call a POISON CENTER/doctor.
P304+P340+P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305+P310	IF IN EYES: Immediately call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international Regulations.

**Special packaging requirements**

Containers to be fitted with child-resistant fastenings:

Not applicable.

Tactile warning of danger:

Not applicable.

**2.3 Other hazards**

There is no additional information available.

**Results of PBT and vPvB assessment**

PBT: There is no additional information available.

vPvB: There is no additional information available.



**SECTION 3\* Composition/information on ingredients**
**3.1 Chemical characterisation: Substances**

Not applicable.

**3.2 Chemical characterisation: Mixtures**

Description: Mixture.

**Dangerous components**

Component	Identification	Classification	Conc. %	Pictograms
Hydrochloric acid	REACH #: 01-2119484862-27 EG: 231-595-7 CAS-nummer: 7647-01-0 Index: 017-002-01-X	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335	<10%	
Ammonium bifluoride	REACH #: 01-2119489180-38 EG: 215-676-4 CAS-nummer: 1341-49-7 Index: 009-009-00-4	REACH #: 01-2119489180-38 EG: 215-676-4 CAS-nummer: 1341-49-7 Index: 009-009-00-4	<5%	

**Additional information**

For the wording of the listed hazard phrases see SECTION 16.

**SECTION 4 First aid measures**
**4.1 Description of first aid measures**
**General information**

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**After 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.

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**After skin contact**

Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. 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.

**After 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.

**After 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.

**4.2 Most important symptoms and effects, both acute and delayed**
**Potential acute health effects**

After inhalation:	No known significant effects or critical hazards.
After skin contact:	Causes severe burns.
After eye contact:	Causes serious eye damage.
After ingestion:	No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

After inhalation:	No specific data.
After skin contact:	Adverse symptoms may include the following: pain or irritation, redness, blistering may occur.
After eye contact:	Adverse symptoms may include the following: pain, watering, redness.
After ingestion:	Adverse symptoms may include the following: stomach pains.

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

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**SECTION 5 Firefighting measures**
**5.1 Extinguishing media**
**Suitable extinguishing agents**

Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**

There is no additional information available.

**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 combustion products**

Decomposition products may include the following materials: nitrogen oxides, halogenated compounds.

**5.3 Advice for firefighters**
**Special precautions**

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.

**Protective equipment**

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

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in SECTION 8 on suitable and unsuitable materials.

**6.2 Environmental precautions**

Avoid dispersal of spilled 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. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local Regulations. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

**6.4 Reference to other sections**

For information on safe handling: see SECTION 7.

For information on personal protection equipment: see SECTION 8.

For disposal information: see SECTION 13.

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

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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. Absorb spillage to prevent material damage. 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.

**7.2 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 and food and drink.

**Requirements to be met by storerooms and tanks**

Store in a corrosion resistant container with a resistant inner liner. Store locked up.

**Information about storage in one common storage facility**

Separate from alkalis.

**Further information about storage conditions**

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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

This product should not be used for applications other than those recommended in SECTION 1 without first seeking the advice of the supplier.

## SECTION 8\* Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with limit values that require monitoring at the workplace

7647-01-0 Hydrochloric acid	
WGW-Wettelijke Grenswaarden (NL, 12/2014)	OEL, TWA-8u: 8 mg/m <sup>3</sup> STEL, TWA-15min: 15 mg/m <sup>3</sup>

1341-49-7 Ammonium bifluoride	
WGW-Wettelijke Grenswaarden (NL, 12/2014)	STEL, TWA-15min: 2 mg/m <sup>3</sup> , (as F)

#### 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 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.

#### DNEL

7647-01-0 Hydrochloric acid				
Inhalative	Acute	Systemic	15 mg/m <sup>3</sup>	Worker
Inhalative	Long-term	Local	8 mg/m <sup>3</sup>	Worker
Inhalative	Long-term	Systemic	8 ppm	Worker
Inhalative	Acute	Local	15 mg/m <sup>3</sup>	Worker

#### PNEC

7647-01-0 Hydrochloric acid		
Fresh water	0,036 mg/l	
Marine water	0,036 mg/l	
Sewage Treatment Plant	0,036 mg/l	

#### Additional information

The lists valid during the making were used as basis.

### 8.2 Exposure controls

#### Personal protective equipment

If user operations generate dust, fumes, gas, vapor 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.

#### General protective and hygienic 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.

#### Respiratory protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

### Protection of hands



#### Protective gloves

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.

#### Material of gloves

Nitrilrubber > 0.35 mm thickness.

#### Penetration time of glove material

> 8 hours (breakthrough time).

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.

### Eye protection/Face protection



#### Chemical splash goggles and/or face shield

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.

### Body protection



#### Chemical-resistant protective suit

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.

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Limitation and supervision of exposure into the environment

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

Form:	Liquid.
Colour:	Not determined.
Odour:	Not determined.
Odour threshold:	Not determined.

#### Other physical and chemical parameters

pH-value, approx.:	1
Change in condition	
• Melting point/freezing point:	Not determined.
• Initial boiling point and boiling range:	Not determined.
Flash point:	Not determined.

Flammability (solid, gas):	Not determined.
Ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Not determined.
Explosive properties:	Not determined.
Explosion limits	
• Lower explosion limit (LEL):	Not determined.
• Upper explosion limit (UEL):	Not determined.
Vapour pressure at 20 °C:	Not determined.
Density at 20 °C:	Not determined.
Relative density:	1.04
Vapour density:	Not determined.
Evaporation rate:	Not determined.
Solubility in/miscibility with water:	Not determined.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity	
• Dynamic:	Not determined.
• Kinematic:	Not determined.
Solvent content VOC (EU 1999/13/EC):	Without volume exclusion: 0.67 g/l; 0.064% (w/w)

## 9.2 Other information

There is no additional information available.

## SECTION 10 Stability and reactivity

### 10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided

The product is stable.

### 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4 Conditions to avoid

There is no additional information available.

### 10.5 Incompatible materials

Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.  
Reactive or incompatible with the following materials: alkalis, metals.

### 10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11\* Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Fatal if swallowed or in contact with skin.

#### LD/LC50 values relevant for classification

##### ATE (Acute Toxicity Estimates)

Oral	2,339.2 mg/kg
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**Primary irritant effect**

- **Skin corrosion/irritation**  
Hydrochloric acid: Mild irritant (Human - 24u - 4%)
- **Serious eye damage/irritation**  
Hydrochloric acid: Mild irritant (Rabbit - 0.5 min - 5 mg)
- **Respiratory or skin sensitization**  
Not available.

**CMR effects (carcinogenic, mutagenic and reprotoxic)**

- **Germ cell mutagenicity**  
Not available.
- **Carcinogenicity**  
Not available.
- **Reprotoxicity**  
Not available.
- **Specific target organ toxicity from single exposure**  
Hydrochloric acid: Category 3: Respiratory tract irritation.
- **Specific target organ toxicity from repeated exposure**  
Not available.

**Aspiration hazard**

Not available.

**SECTION 12 Ecological information**

**12.1 Toxicity**

**Aquatic toxicity**

**7647-01-0 Hydrochloric acid**

Acute LC50/48h	240,000 µg/l (marine water)
Acute LC50/96h	282 ppm (fresh water)

**12.2 Persistence and degradability**

There is no additional information available.

**12.3 Bioaccumulative potential**

There is no additional information available.

**12.4 Mobility in soil**

There is no additional information available.

**Additional ecological information**

There is no additional information available.

**12.5 Results of PBT and vPvB assessment**

There is no additional information available.

**12.6 Other adverse effects**

There is no additional information available.

**SECTION 13 Disposal considerations**

**13.1 Waste treatment methods**

**Product**





**Methods of disposal**

The generation of waste should be avoided or minimized 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 nonrecyclable 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.
<b>Contaminated packaging</b> Methods of disposal	The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14\* Transport information**

14.1 UN-number:	UN3264
14.2 UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrochloric acid, ammonium bifluoride)
14.3 Transport hazard class(es):	 
Class:	8 Corrosive substances
14.4 Packing group:	II
14.5 Environmental hazards:	None.
14.6 Special precautions for user:	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Not applicable.
14.8 Information for each of the UN Model Regulations	
<b><u>Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)</u></b>	
UN-number:	UN3264
Proper shipping name:	3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (hydrochloric acid, ammonium bifluoride)
Particulars in the transport document:	UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Class:	8 Corrosive substances
Classification code:	n/a
Packing group:	II
Danger label(s):	8
	 
Limited quantities (LQ):	1L
Tunnel restriction code (TRC):	E
Hazard Identification No:	80

Special provisions: 274

**International Maritime Dangerous Goods Code (IMDG)**

UN-number: UN3264

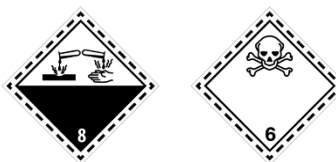
Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(hydrochloric acid, ammonium bifluoride)

Particulars in the transport document: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II

Class: 8 Corrosive substances

Packing group: II

Danger label(s): 8



EmS: F-A,S-B

Special provisions: 274

**International Civil Aviation Organization (ICAO-IATA/DGR)**

UN-number: UN3264

Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(hydrochloric acid, ammonium bifluoride)

Particulars in the transport document: UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II

Class: 8 Corrosive substances

Packing group: II

Danger label(s): 8



Limited quantities (LQ):

Passenger and Cargo Aircraft:  
Quantity limitation: 1 L  
Packaging instructions: 851

Cargo Aircraft Only:  
Quantity limitation: 30 L  
Packaging instructions: 855

Passenger Aircraft Only:  
Quantity limitation: 0.5 L  
Packaging instructions: Y840

Special provisions: A3, A803

**SECTION 15 Regulatory information**

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

**International Regulations**

- **Regulation (EC) No 1907/2006 – ANNEX XIV**  
None of the components are listed.
- **Regulation (EC) No 1907/2006 – ANNEX XVII**  
Not applicable.

- **Regulation (EC) No 648/2004 – ANNEX VIIA – Annex VIIA – Labelling for contents**  
Less than 5%: non-ionic surfactants, FORMALDEHYDE

#### National Regulations

- **Water hazard class:**  
Germany: 1 Appendix No. 4  
Netherlands: Water Discharge Policy (ABM): Slightly harmful to aquatic organisms. Abatement effort: B.

#### 15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

### SECTION 16 Other information

#### Relevant phrases

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

#### Department issuing SDS

Environment protection department

#### Abbreviations and acronyms

Acute Tox. 1	Acute toxicity, Hazard Category 1
Acute Tox. 2	Acute toxicity, Hazard Category 2
ADN	Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (division of the American Chemical Society)
DNEL	Derived No-Effect Level (REACH)
EC50	Effective Concentration, 50 percent
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam. 1	Serious eye damage/eye irritation, Hazard Category 1
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
IOELVs	Indicative Occupational Exposure Limit Values
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
Met. Corr.1	Corrosive to metals, Hazard Category 1
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration (REACH)
RID	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
Skin Corr. 1A	Skin corrosion/irritation, Hazard Category 1A
STEL	Short Term Exposure Limit
VOC	Volatile Organic Compounds (USA, EU)
vPvB	very Persistent and very Bioaccumulative
WEL	Workplace Exposure Limits

#### References

This information is based on the current available data (suppliers of raw materials, chemistry maps, Annex VI).  
See also the internet site: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.  
Based on Regulations – 1907/2006/EC, 272/2008/EC and directive 2012/18/EU.

#### Date of composition

18/03/2019

**Version date**

30/06/2020

**Indication of changes**

Revisions were made in sections marked with \*.

**Disclaimer**

The information provided in this Material Safety Data Sheet has been prepared with the utmost care and corresponds to the most recent information available to the supplier on the date of publication mentioned in the header of every page. The contents of this Material Safety Data Sheet should not be considered as a guarantee for certain product properties or fitness for particular purposes. It is the obligation of the user to determine whether the product is suitable for the specific purpose, intended use and the method of application. This Safety Data Sheet only relates to the product described and does not apply to any not defined use or the use of the product in combination with other materials, substances or products. It is the responsibility of the user to use and handle the product with care and to comply with all applicable laws and Regulations. The supplier accepts no liability for direct or indirect damages resulting from improper use of this Material Safety Data Sheet and / or the products described therein.