

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

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

- **1.1 Product identifier**
- **Trade name:** De-Limer
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** Delimiting agent
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Chemco Corporation  
300 Canal St.  
Lawrence MA 01840 USA  
Telephone (978) 687-9000  
Toll-Free (800) 458-8010
- **1.4 Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924, +1 (813)248-0585

## 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Repr. 2      H361 Suspected of damaging fertility or the unborn child.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R35: Causes severe burns.

- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.  
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 1)

## · Hazard pictograms



GHS05 GHS08

## · Signal word Danger

## · Hazard-determining components of labelling:

phosphoric acid

## · Hazard statements

H314 Causes severe skin burns and eye damage.

H361 Suspected of damaging fertility or the unborn child.

## · Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P405 Store locked up.

## · Additional information:

Keep out of the reach of children

## · Hazard description:

## · WHMIS-symbols:

E - Corrosive material



## · NFPA ratings (scale 0 - 4)



Health = 3

Fire = 0

Reactivity = 0

## · HMIS-ratings (scale 0 - 4)



Health = \*3

Fire = 0

Reactivity = 0

## · HMIS Long Term Health Hazard Substances

68412-54-4 | Nonylphenoxy poly (ethyleneoxy 9)ethanol, branched

## · 2.3 Other hazards

## · Results of PBT and vPvB assessment

· PBT: Not applicable.

(Contd. on page 3)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 2)











· vPvB: Not applicable.

### 3 Composition/information on ingredients

#### 3.2 Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.

#### · Dangerous components:

CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6	phosphoric acid  C R34  Skin Corr. 1B, H314	25-50%
CAS: 79-14-1 EINECS: 201-180-5	glycollic acid  C R34;  Xn R22  Skin Corr. 1B, H314  Acute Tox. 4, H302	<10%
CAS: 68412-54-4 NLP: 500-209-1	Nonylphenoxy poly (ethyleneoxy 9)ethanol, branched  Xn R62;  Xi R36/38 R52/53  Repr. 2, H361  Skin Irrit. 2, H315; Eye Irrit. 2, H319 Aquatic Chronic 3, H412	<10%

#### · SVHC

68412-54-4 | Nonylphenoxy poly (ethyleneoxy 9)ethanol, branched

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

#### · 4.1 Description of first aid measures

##### · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Immediately remove any clothing soiled by the product.

##### · After inhalation:

Supply fresh air.

Seek immediate medical advice.

In case of irregular breathing or respiratory arrest provide artificial respiration.

##### · After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

Seek immediate medical help for blistering or open wounds.

##### · After eye contact:

Remove contact lenses if worn, if possible.

Rinse opened eye for several minutes under running water. Then consult a doctor.

##### · After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

(Contd. on page 4)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

**Trade name: De-Limer**

(Contd. of page 3)

- **4.2 Most important symptoms and effects, both acute and delayed**  
Nausea  
Cramp  
Coughing  
Breathing difficulty
- **Hazards** Danger of gastric perforation.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
Medical supervision for at least 48 hours.

## 5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**  
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information** No further relevant information available.

## 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Use limestone to neutralize and absorb spill.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.

(Contd. on page 5)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 4)

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Unsuitable material for receptacle: aluminium.  
Suitable material for receptacles and pipes: glass.  
Use rubberized containers.
- **Information about storage in one common storage facility:**  
Do not store together with alkalis (caustic solutions).  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Store receptacle in a well ventilated area.  
Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

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

#### 7664-38-2 phosphoric acid

IOELV (EU)	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
PEL (USA)	Long-term value: 1 mg/m <sup>3</sup>
REL (USA)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
TLV (USA)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
EL (Canada)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
EV (Canada)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
Use suitable respiratory protective device in case of insufficient ventilation.

(Contd. on page 6)

## Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 5)

Use suitable respiratory protective device when aerosol or mist is formed.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact gloves made of the following materials are suitable:**

Butyl rubber, BR  
Fluorocarbon rubber (Viton)  
Neoprene gloves

- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

- **Eye protection:**

Contact lenses should not be worn.



Safety glasses

- **Body protection:**

Acid resistant protective clothing



Apron

- **Limitation and supervision of exposure into the environment**

No further relevant information available.

- **Risk management measures**

See Section 7 for additional information.

No further relevant information available.

(Contd. on page 7)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 6)

## 9 Physical and chemical properties

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

#### · General Information

#### · Appearance:

Form:	Liquid
Colour:	Greenish-blue.
Odour:	Odourless
Odour threshold:	Not determined.

· pH-value at 20 °C: 2

#### · Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	>250 °F / >121 °C

· Flash point: Not applicable.

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: Not determined.

· Decomposition temperature: Not determined.

· Self-igniting: Product is not self-igniting.

· Danger of explosion: Product does not present an explosion hazard.

#### · Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure at 20 °C: 23 hPa

· Density at 20 °C:	1,07 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· Solubility in / Miscibility with water: Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

#### · Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

· 9.2 Other information: No further relevant information available.

(Contd. on page 8)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 7)

## 10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**  
Reacts with amines.  
Reacts with certain metals.  
Reacts with alkali (lyes).  
Reacts with base metals forming hydrogen.  
May produce violent reactions with bases and numerous organic substances including alcohols and amines.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
Phosphorus compounds  
Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)  
Carbon monoxide and carbon dioxide  
Nitrogen oxides

## 11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**  
Repr. 2

## 12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** The product contains materials that are harmful to the environment.
- **12.2 Persistence and degradability**  
Inorganic product, is not eliminable from water by means of biological cleaning processes.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

(Contd. on page 9)



# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer


(Contd. of page 8)

- **Additional ecological information:**
- **General notes:**  
This statement was deduced from the properties of the single components.  
Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralized.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water only.

## 14 Transport information

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>   | UN1805  |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul> | Phosphoric acid solution<br>1805 PHOSPHORIC ACID, SOLUTION<br>PHOSPHORIC ACID, SOLUTION   |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>   | <div style="text-align: center;">  <p>CORROSIVE</p> </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>   | 8 Corrosive substances.   |

(Contd. on page 10)

# Safety Data Sheet



according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 9)

· Label	8
· ADR	
	
· Class	8 (C1) Corrosive substances.
· Label	8
· IMDG, IATA	
	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	
· DOT, ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	
· Danger code (Kemler):	Warning: Corrosive substances.
· EMS Number:	80
· Segregation groups	F-A,S-B
	Acids
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Transport category	3
· Tunnel restriction code	E
· UN "Model Regulation":	UN1805, PHOSPHORIC ACID, SOLUTION, 8, III

## 15 Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

(Contd. on page 11)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 10)

<b>· Section 313 (Specific toxic chemical listings):</b>	
7664-38-2	phosphoric acid

<b>· TSCA (Toxic Substances Control Act):</b>	
All ingredients are listed.	

<b>· Proposition 65 (California):</b>	
<b>· Chemicals known to cause cancer:</b>	
None of the ingredients is listed.	

<b>· Chemicals known to cause reproductive toxicity for females:</b>	
None of the ingredients is listed.	

<b>· Chemicals known to cause reproductive toxicity for males:</b>	
None of the ingredients is listed.	

<b>· Chemicals known to cause developmental toxicity:</b>	
Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.	
None of the ingredients is listed.	

<b>· Carcinogenic Categories</b>	
<b>· EPA (Environmental Protection Agency)</b>	
None of the ingredients is listed.	

<b>· IARC (International Agency for Research on Cancer)</b>	
None of the ingredients is listed.	

<b>· TLV (Threshold Limit Value established by ACGIH)</b>	
None of the ingredients is listed.	

<b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
None of the ingredients is listed.	

<b>· OSHA-Ca (Occupational Safety &amp; Health Administration)</b>	
None of the ingredients is listed.	

<b>· Canada</b>	
<b>· Canadian Domestic Substances List (DSL)</b>	
All ingredients are listed.	

<b>· Canadian Ingredient Disclosure list (limit 0.1%)</b>	
None of the ingredients is listed.	

<b>· Canadian Ingredient Disclosure list (limit 1%)</b>	
7664-38-2	phosphoric acid
79-14-1	glycollic acid

<b>· National regulations:</b>	
<b>· Other regulations, limitations and prohibitive regulations</b>	
<b>· Substances of very high concern (SVHC) according to REACH, Article 57</b>	
68412-54-4	Nonylphenoxy poly (ethyleneoxy 9)ethanol, branched

(Contd. on page 12)

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
GHS

Printing date 20.09.2013

Revision: 19.09.2013

Trade name: De-Limer

(Contd. of page 11)

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H361 Suspected of damaging fertility or the unborn child.  
 H412 Harmful to aquatic life with long lasting effects.

R22 Harmful if swallowed.  
 R34 Causes burns.  
 R36/38 Irritating to eyes and skin.  
 R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R62 Possible risk of impaired fertility.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 WHMIS: Workplace Hazardous Materials Information System (Canada)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)

· **Sources**

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