



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** Phosfree Commercial  
**CAS #** Mixture  
**Product Use** Phosphate remover  
**Manufacturer** Natural Chemistry, LLC  
40 Richards Ave.  
Norwalk, CT 06854 US  
Phone: (800) 753-1233  
Emergency Phone: CHEMTREC (800) 424-9300

## 2. Hazards Identification

**Emergency Overview** CAUTION  
CAUSES EYE IRRITATION.  
MAY CAUSE SKIN IRRITATION.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Eyes** Causes irritation.

**Skin** May cause irritation.

**Inhalation** May cause respiratory tract irritation.

**Ingestion** May cause stomach distress, nausea or vomiting.

**Target organs** Eyes. Skin. Respiratory system.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, oedema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Potential environmental effects** See section 12.

## 3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Hydrochloric acid	7647-01-0	1 - 5
Basic aluminum chloride	1327-41-9	30 - 60

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops or persists.

**Skin contact** Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists. Remove any contaminated clothing and wash thoroughly with soap and water.

**Inhalation** If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

**Ingestion** Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

**Notes to physician** Symptoms may be delayed.

**General advice** If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

## 5. Fire-fighting Measures

**Flammable properties** Not flammable by WHMIS criteria.

## Extinguishing media

**Suitable extinguishing media** Treat for surrounding material.

**Unsuitable extinguishing media** Not available

## Protection of firefighters

**Specific hazards arising from the chemical** Not available

**Protective equipment for firefighters** Firefighters should wear full protective clothing including self contained breathing apparatus.

**Hazardous combustion products** May include and are not limited to: Hydrogen chloride. Oxides of sulphur. Oxides of aluminum.

## Explosion data

**Sensitivity to mechanical impact** Not available

**Sensitivity to static discharge** Not available

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## 6. Accidental Release Measures

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### Personal precautions

Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

### Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

### Methods for containment

Stop leak if you can do so without risk.

### Methods for cleaning up

Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

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## 7. Handling and Storage

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### Handling

Use good industrial hygiene practices in handling this material. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

### Storage

Keep out of reach of children. Store in a closed container away from incompatible materials.

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## 8. Exposure Controls / Personal Protection

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### Exposure limit values

#### Ingredient(s)

#### Exposure limit values

Basic aluminum chloride

**ACGIH-TLV**  
TWA: 2 mg/m<sup>3</sup>

Hydrochloric acid

**ACGIH-TLV**  
Ceiling: 2 ppm

### Engineering controls

General ventilation normally adequate.

### Personal protective equipment

#### Eye/Face protection

Safety glasses or goggles.

#### Hand protection

Rubber gloves. Confirm with a reputable supplier first.

#### Skin and body protection

As required by employer code.

#### Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

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## 9. Physical and Chemical Properties

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### Appearance

Cloudy

### Colour

White

### Form

Liquid

### Odour

Slight chlorine.

Odour threshold	Not available
Physical state	Liquid
pH	3 - 3.6
Freezing point	Not available
Boiling point	Not available
Pour point	Not available
Evaporation Rate	Not available
Flash point	Not available
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability Limits in Air, Upper, % by Volume	Not available
Vapour pressure	Not available
Vapour density	Not available
Specific gravity	1.2022
Octanol/water coefficient	Not available
Solubility (H2O)	Complete
VOC (Weight %)	Not available
Viscosity	Not available
Percent volatile	Not available

## 10. Stability and Reactivity

Reactivity	Reacts vigorously with alkaline material.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Caustics. Oxidizers. Reducing agents.
Hazardous decomposition products	May include and are not limited to: Hydrogen chloride. Oxides of sulphur. Oxides of aluminum.

## 11. Toxicological Information

### Component analysis - LC50

Ingredient(s)	LC50
Basic aluminum chloride	Not available
Hydrochloric acid	935 ppm mouse; 3124 mg/l/4h rat

### Component analysis - Oral LD50

Ingredient(s)	LD50
Basic aluminum chloride	Not available
Hydrochloric acid	900 mg/kg rabbit; 700 mg/kg rat

### Effects of acute exposure

Eye	Causes irritation.
Skin	May cause irritation.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitisation	Non-hazardous by WHMIS criteria.
Chronic effects	Non-hazardous by WHMIS criteria.
Carcinogenicity	Non-hazardous by WHMIS criteria.

#### ACGIH - Threshold Limit Values - Carcinogens

Hydrochloric acid	7647-01-0	A4 - Not Classifiable as a Human Carcinogen
<b>IARC - Group 3 (Not Classifiable)</b>		
Hydrochloric acid	7647-01-0	Monograph 54 [1992]

<b>Mutagenicity</b>	Non-hazardous by WHMIS criteria.
<b>Reproductive effects</b>	Non-hazardous by WHMIS criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS criteria.
<b>Name of Toxicologically Synergistic Products</b>	Not available

## 12. Ecological Information

<b>Ecotoxicity</b>	See below
<b>Ecotoxicity - Freshwater Fish - Acute Toxicity Data</b>	
Hydrochloric acid	7647-01-0      96 Hr LC50 Gambusia affinis: 282 mg/L [static]
<b>Persistence and degradability</b>	Not available
<b>Bioaccumulation/accumulation</b>	Not available
<b>Mobility in environmental media</b>	Not available
<b>Environmental effects</b>	Not available
<b>Aquatic toxicity</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Chemical fate information</b>	Not available
<b>Other adverse effects</b>	Not available

## 13. Disposal Considerations

<b>Disposal instructions</b>	Review federal, provincial, and local government requirements prior to disposal.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

## 14. Transport Information

<b>U.S. Department of Transportation (DOT)</b>	Not regulated as dangerous goods.
<b>Transportation of Dangerous Goods (TDG - Canada)</b>	Not regulated as dangerous goods.

## 15. Regulatory Information

<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.	
<b>Canada - WHMIS - Ingredient Disclosure List</b>		
Hydrochloric acid	7647-01-0	1 %
<b>WHMIS classification</b>	Class D - Division 2B	
<b>WHMIS status</b>	Controlled	
<b>WHMIS labeling</b>		



### Inventory Status

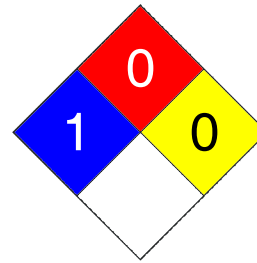
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 1
Flammability	0
Physical Hazard	0
Personal Protection	X



### Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

### Issue date

23-Jan-2012

### Effective Date

01-Jan-2012

### Expiry Date

01-Jan-2015

### Prepared by

Dell Tech Laboratories Ltd. (519) 858-5021

### Other Information

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.