



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

6. Accidental Release Measures

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.

7. Handling and Storage

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.

8. Exposure Controls / Personal Protection

Exposure limit values

Ingredient(s)

Exposure limit values

Basic aluminum chloride

ACGIH-TLV
TWA: 2 mg/m³

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.

9. Physical and Chemical Properties

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
IARC - Group 3 (Not Classifiable)		
Hydrochloric acid	7647-01-0	Monograph 54 [1992]

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

12. Ecological Information

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

13. Disposal Considerations

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

14. Transport Information

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

15. Regulatory Information

Canadian federal regulations	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.	
Canada - WHMIS - Ingredient Disclosure List		
Hydrochloric acid	7647-01-0	1 %
WHMIS classification	Class D - Division 2B	
WHMIS status	Controlled	
WHMIS labeling		



Inventory Status

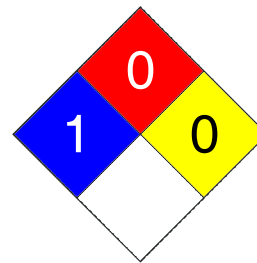
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

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.

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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.