

Material Safety Data Sheet



DYNA-SAN LIME REMOVER

Section 1. Chemical product and company identification

Trade name : DYNA-SAN LIME REMOVER
Product use : Delimer
Supplier : Ecolab, Professional Products Division
370 Wabasha Street N
St. Paul MN 55102
5105 Tomken Road
Mississauga ON L4W 2X5
1-800-352-5326
Code : 903739
Date of issue : 03-February-2005

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
Outside United States and Canada CALL 1-651-222-5352

Section 2. Composition, Information on Ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
Phosphoric acid	7664-38-2	15 - 40
alcohols, c10-14, ethoxylated	66455-15-0	3 - 7
hydroxyacetic acid	79-14-1	1 - 5

Section 3. Hazards identification

Physical state : Liquid. (Liquid.)

Emergency overview : Danger!

CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
MAY BE HARMFUL IF SWALLOWED.

Do not ingest. Do not get in eyes, on skin or clothing. Do not breathe vapour or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry : Skin contact, Eye contact, Inhalation, Ingestion

Potential acute health effects

Eyes : Corrosive to eyes.

Skin : Corrosive to the skin.

Inhalation : Corrosive to the respiratory system.

Ingestion : Harmful if swallowed. May cause burns to mouth, throat and stomach.

See toxicological information (section 11)

Section 4. First aid measures

Eye contact : In case of contact, immediately flush eyes with cool running water. Remove contact lenses and continue flushing with plenty of water for at least 15 minutes. Obtain medical attention immediately.

Skin Contact : In case of contact, immediately flush skin copiously with water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Obtain medical attention immediately.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention immediately.

Ingestion : Rinse mouth; then drink one or two large glasses of water. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Obtain medical attention immediately.

Section 5. Fire fighting measures

Auto-ignition temperature : Not available.

Flash point : > 100°C

Flammable limits

Upper: Not available.

Lower: Not available.

Products of combustion : Not available.

Fire-fighting media and instructions : Use an extinguishing agent suitable for surrounding fires.

Dike area of fire to prevent product run-off.

No specific hazard.

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.

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Section 6. Accidental release measures

Personal Precautions : Ventilate area of leak or spill. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment (Section 8). Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.-

Section 7. Handling and storage

Handling : Do not ingest. Do not get in eyes, on skin or on clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapour or mist. Wash thoroughly after handling.

Storage : Keep out of the reach of children. Keep container tightly closed. Keep container in a cool, well-ventilated area.

Store between -5 and 50°C

Section 8. Exposure Controls, Personal Protection

Engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes : Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.

Hands : Use chemical resistant, impervious gloves.

Skin : Use synthetic apron, other protective equipment as necessary to prevent skin contact.

Respiratory : 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.

Name

Phosphoric acid

Exposure limits**ACGIH TLV (United States, 9/2004).**STEL: 3 mg/m³ 15 minute(s). Form: All formsTWA: 1 mg/m³ 8 hour(s). Form: All forms**Section 9. Physical and chemical properties**

Physical state	: Liquid. (Liquid.)
Colour	: Colourless to light yellow.
Odour	: Acetic acid.
pH	: 2.1 (1%)
Boiling/condensation point	: 100 °C
Melting/freezing point	: Not available.
Specific gravity	: 1.15 (Water = 1)
Vapour pressure	: Not applicable.
Vapour density	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not available.
LogK _{ow}	: Not available.

Section 10. Stability and reactivity

Stability	: The product is stable.
Conditions of instability	: Not available.
Reactivity	: Highly reactive with alkalis. Reactive with organic materials, metals.
Incompatibility with various substances	: Not available.
Hazardous Decomposition Products	: Not available.

Section 11. Toxicological information**Potential acute health effects**

Eyes	: Corrosive to eyes.
Skin	: Corrosive to the skin.
Inhalation	: Corrosive to the respiratory system.
Ingestion	: Harmful if swallowed. May cause burns to mouth, throat and stomach.
Irritancy of Product	: Hazardous by WHMIS criteria.

Potential chronic health effects

Carcinogenic effects	: No known significant effects or critical hazards.
Mutagenic effects	: No known significant effects or critical hazards.
Teratogenic effects	: No known significant effects or critical hazards.
Reproductive effects	: No known significant effects or critical hazards.
Sensitization to Product	: No known significant effects or critical hazards.
Synergistic Products (Toxicologically)	: Not available.

Toxicity data

Ingredient name	Test	Result	Route	Species
Phosphoric acid	LD50	1530 mg/kg	Oral	Rat
	LD50	2740 mg/kg	Dermal	Rabbit
hydroxyacetic acid	LD50	1950 mg/kg	Oral	Rat
	LD50	1920 mg/kg	Oral	Guinea pig

Target organs : Contains material which causes damage to the following organs: lungs, upper respiratory tract, skin, eye, lens or cornea.

Section 12. Ecological information

Products of degradation : These products are carbon oxides (CO, CO₂) and water, phosphates. Some metallic oxides.

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. 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.

Consult your local or regional authorities.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Additional Information
TDG Classification	UN1805	PHOSPHORIC ACID, LIQUID	8	III	<u>Passenger Carrying Road or Rail Index</u> 5

APPLIES ONLY DURING ROAD TRANSPORT

Any variation of the shipping description based on the packaging is not addressed.

Section 15. Regulatory information

WHMIS : Class E: Corrosive material.

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*.

Section 16. Other information

Date of issue : 03-February-2005.

Responsible name : Regulatory Affairs

Date of previous issue : No Previous Validation.

Notice to reader

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, **NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.**