PRO-SCALE™ SAFETY DATA SHEET

Issued: 02/07/2010 Revision No: 02

7 Pages

According to the Commision Regulation (EU) No 453/2010 Annex II of REACH Regulation

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product Identifier

Pro-Scale

1.2 Relevant identified uses of the mixture and of the company

Lime Scale Remover

1.3 Details of the supplier of the safety data sheet

DiversiTech UK Limited
Glaisdale Drive East, Nottingham, NG8 4LY United Kingdom
Phone: +44 115 900 5858

1.4 Emergency telephone number

Emergency tel

+1 813 248 0585 24 Hours, 7 Emergency Days, Chem-Tel, Inc.

DiversiTech UK Limited | Glaisdale Drive East | Nottingham NG8 4LY | Phone 0115 900 5858 | Fax 0115 929 4468 | www.diversitech-uk.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the mixture

Classification under CHIP:	[C]; R34;
Directive 1999/45/EC:	This mixture meets the criteria for classification as dangerous in accordance with Directive 1999/45/EC.

Physiochemical Hazards：Can react with certain metals, such as aluminium, to generate flammable hydrogen gas. May cause fire and explosions when in contact with oxidising agents or strong bases. Adding water to caustic solution generates large amounts of heat.

Human Health: Causes burns. Prolonged or repeated contact may cause defatting and drying of skin. If ingested, nausea and stomach pain may occur. There may be vomiting and diarrhoea. May cause gastric distress. If inhaled, there may be irritation of the throat with a feeling of tightness in the chest. May experience difficulty breathing

Environment: Long term degradation products may arise. The products of degradation are less toxic than the product itself.

Please see Section 16 for full classification.

2.2 Label elements

Corrosive

Risk Phrases:

R22: Harmful if swallowed.

R34: Causes burns.

Safety Phrases:

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28: After contact with skin, wash immediately with plenty of soap and water.

S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other hazards

Workplace exposure limit:	This product does not have a workplace exposure limit.
PBT:	This substance is not identified as a PBT substance.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	EC No	CAS No.	CONTENT %	CLASSIFICATION
Orthophosphoric acid	231-633-2	7664-38-2	<30	[C], R34
Hydroxyacetic acid	201-180-5	79-14-1	<10	[C], R22, R34

SECTION 4: FIRST-AID MEASURES

4.1 Description of first aid measures

Skin Contact - Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. If irritation develops or persists, get medical attention

Eye Contact - Bathe the eye with running water for 15 minutes. Lift eyelids while flushing to ensure all areas of the eye and eyelid are flushed Transfer to hospital for specialist examination.

Ingestion - Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Call the nearest poison centre for medical advice.

Inhalation - Allow the affected individual to rest in well ventilated area. Seek medical attention if breathing distress continues.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns. Prolonged or repeated contact may cause defatting and drying of skin. If ingested, nausea and stomach pain may occur. There may be vomiting and diarrhoea. May cause gastric distress. If inhaled, there may be irritation of the throat with a feeling of tightness in the chest. May experience difficulty breathing

4.3 Indication of any immediate attention and special treatment needed

If the product makes contact with the eye and skin immediate treatment is required. If the product is ingested immediate medical attention is required.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Do not use water.

5.2 Special hazards arising from the substance or mixture

Can react with certain metals, such as aluminium, to generate flammable hydrogen gas. May cause fire and explosions when in contact with incompatible materials. Adding water to caustic solution generates large amounts of heat.

5.3 Advice for fire-fighters

Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Remove contaminated clothing immediately. Cleanup personnel must be equipped with personal protective gear. Ensure adequate ventilation. Keep unnecessary and unprotected people away from area of spill.

6.2 Environmental precautions

Dispose of neutralised waste material in a hazardous waste facility.

6.3 Method for cleaning up

Neutralise with sodium bicarbonate, soda ash, or lime. Pick up neutralised solution with a plastic pump or vacuum truck and store the neutralised solution in a leak-proof polyethylene container until the product can be disposed of in a hazardous waste facility. Flush area twice with water to remove any remaining residues. Store wash solution in polyethylene containers for disposal. Do not use aluminium tools to collect absorbed material or aluminium containers to store collected wastes

6.4 Reference to other sections

Please refer to Section 8 for details on protective wear.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid direct contact with the substance. Wash hands after handling. Smoking is forbidden. Wash clothing after handling. Ensure there is sufficient ventilation of the area.

7.2 Condition for safe storage, including any incompatibilities

Keep container tightly closed. Do not use aluminium containers. Do not store with magnesium containers. Do not use aluminium tools to collect absorbed material or aluminium containers to store collected wastes. Do not use metal measuring containers for handling this product.

7.3 Specific end use(s)

No further details

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

INGREDIENT	CAS NO.	LT PPM	LT MG/M^3	ST PPM	ST MG/M^3
ORTHOPHOSPHORIC ACID - 100%	7664-38-2		1 mg/m3		2 mg/m3

8.2 Exposure controls

Ensure there is sufficient ventilation of the area.

Eye/face protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities or a source of running water in the work area.

Skin protection:

Hand protection: Impermeable gloves (nitrile gloves)

Other: Wear impervious and acid-resistant protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate to prevent skin contact.

Respiratory protection: A system of local and/or general exhaust is recommended to keep employee below exposure limit. A half-piece particulate respirator (EN 149) may be worn for up to ten times the exposure limit. Local exhaust ventilation is preferred. A full-face piece particulate respirator may be worn up to 50 times the exposure limit.

Thermal hazards: Not relevant

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Purple liquid
Odour:	Astringent, slightly bunt odor
Odour threshold:	n.a.
pH:	2-3 @ 5%
Melting point/freezing point:	**<**0°C
Initial boiling point and boiling range:	>100°C
Flash point:	n.a.
Evaporation rate:	(Water = 1) > 1
Flammability limits %	n.a.
Vapour pressure:	Same as water
Vapour density	Same as water
Relative density:	1.095
Solubility:	Miscible in water
Partition Coefficient: n-octanol/water:	
Auto-ignition temperature:	n.a.
Decomposition temperature:	n.a.
Viscosity:	<30Centipoise @ 20°C
Explosive properties:	n.a.
Oxidising properties:	n.a.

9.2 Other information

No further details

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Can react with certain metals, such as aluminium, to generate flammable hydrogen gas.

10.4 Conditions to avoid

Heat, Incompatibles.

10.5 Incompatible materials

Oxidising agents. Strong bases. Metal containers. Magnesium. Aluminium.

10.6 Hazardous decomposition products

Hydrogen gas. Sulphur Dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Test	Species	End-Point	Value
Dust/Mist	Rat	1 hour LC50	209 ppmV
Dermal	Rabbit	LD50	2740 mg/kg
Oral	Rat	LD50	1530 mg/kg

Acute Toxicity: Corrosive, causes burns

Irritation: Prolonged or repeated contact may cause defatting and drying of skin. Severe irritation of skin and eyes. If ingested, nausea and stomach pain may occur. There may be vomiting and diarrhoea. May cause gastric distress. May be fatal if swallowed. If inhaled, there may be irritation of the throat with a feeling of tightness in the chest. May experience difficulty breathing.

Corrosivity: Causes burns. In contact with skin, may cause chemical burns. Symptoms may be delayed by 12 hours. Causes burns to eyes.

Sensitisation: No data.

Repeated dose toxicity: No data.

Carcinogenicity: No data.

Mutagenicity: No data.

Toxicity for reproduction: No data.

The substance may be toxic to blood, liver, skin, eyes, bone marrow. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Route of exposure: Skin contact.

Symptoms related to the physical, chemical and toxicological characteristics: Prolonged or repeated contact may cause defatting and drying of skin. If ingested, nausea and stomach pain may occur. There may be vomiting and diarrhoea. May cause gastric distress. If inhaled, there may be irritation of the throat with a feeling of tightness in the chest. May experience difficulty breathing.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

Long term degradation products may arise. The products of degradation are less toxic than the product itself.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This product does not contain substances identified as PBT.

12.6 Other adverse effects

No further details.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal operations – Treat empty containers as hazardous. Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging – Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Dispose of according to national regulations.

Please follow all local, regional, national and international laws.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN 3264

14.2 UN proper shipping name

Corrosive Liquid, Acidic, Inorganic, N.O.S. (contains phosphoric acid and hydroxyacetic acid)

14.3 Transport hazard class

Class 8

14.4 Packing group

II

14.5 Environmental hazards

Not Environmentally Hazardous Substance or Marine Pollutant

14.6 Special precautions for user

See Section 8

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable to packaged goods

Mode-specific information:

ROAD/RAIL (ADR/RID/CDG)	Transport category 3
	Tunnel restriction code E
SEA (IMDG)	Not Marine Pollutant
	IMDG Code segregation group 1 – Acids
	EmS: F-A S-B
AIR (ICAO/IATA)	ERG Code 8L

SECTION 15: REGULATORY INFORMATION

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

According to CHIP

Hazard symbols: Corrosive

Risk Phrases:

R34: Causes burns.

Safety Phrases:

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28: After contact with skin, wash immediately with plenty of soap and water.

S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60: This material and its container must be disposed of as hazardous waste.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

15.2 Chemical safety assessment

A chemical safety assessment has not been conducted.

SECTION 16: OTHER INFORMATION

16.1 Other information

This safety data sheet is prepared in accordance with Regulation (EC) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

16.2 Risk Phrases used in Section 3

R22: Harmful if swallowed.

R35: Causes severe burns.

R41: Risk of serious damage to eyes.

Abbreviations:

UN Model Regulations means the Model Regulations annexed to the most recently revised edition of the

Recommendations on the Transport of Dangerous Goods published by the United Nations.

IMDG Code means the International Maritime Dangerous Goods code, as amended.

ADR means the European Agreement concerning the International Carriage of Dangerous Goods by Road, as amended.

RID means the Regulations concerning the International Carriage of Dangerous Goods by Rail, as amended.

ADN means the European Agreement concerning the International Transport of Dangerous Goods by Inland Waterways, as amended.

Sources of Key Data:

UK Regulatory References: The Control of Substances Hazardous to Health Regulations 1988. Chemicals (Hazard Information & Packaging) Regulations.

EU Directives: Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC. System of specific information relating to Dangerous Preparations. 2001/58/EC.

Statutory Instruments: Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.

Approved Code of Practice: Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply. British

Guidance Notes: Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

National Regulations: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689.

Classification and Labelling Guidance: Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Annex 2

Precautionary Statement and Pictograms: Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Annex 3

Guidance on the Preparation of Safety Data Sheets: Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Annex 4

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