PRO-UNIVERSAL™ 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-Universal

1.2 Relevant identified uses of the mixture and of the company

Universal coil cleaner.

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]; R22; R34;
Directive 1999/45/EC:	This mixture meets the criteria for classification as dangerous in accordance with Directive 1999/45/EC.

Physicochemical hazards: This product does not contain substances which have physicochemical hazardous properties

Human health: Harmful if swallowed. Causes burns. - Swallowing may cause burns of mouth, throat and stomach. Scarring of tissue and death may result. Bleeding may occur. There may be vomiting and diarrhoea. A fall in blood pressure may occur. Symptoms may be delayed after exposure. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose, redness, itching or burning. Severe pneumonitis may occur.

Environment: This product does not contain substances which are harmful to aquatic organisms or which may cause long term effects to the aquatic environment.

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).

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

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

Name:	CAS Number	EINECS Number	% Composition	Classification according to CHIP
Potassium hydroxide	1310-58-3	215-181-3	5-10	[Xn] R22; [C] R35.
Sodium silicate	1344-09-8	239-981-7	5-10	[Xn] R22; [C] R35; [Xi] R41

SECTION 4: FIRST-AID MEASURES

4.1 Description of first aid measures

Skin contact - Immediately flush skin with plenty of water for at least 15 minutes. Remove all contaminated clothes and footwear immediately unless stuck to skin. Get medical attention immediately after administering first aid.

Eye contact - Immediately flush eyes with plenty of water for 15 minutes, lifting lower and upper eyelids occasionally. If relevant, remove contact lenses. Get medical attention immediately after administering first aid.

Ingestion - Call the nearest poison centre for medical advice. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Do not leave victim unattended. To prevent aspiration lay victim on side with head lower than waist. Vomit may occur spontaneously.

Inhalation - Remove casualty from exposure ensuring one's own safety whilst doing so. If not breathing give artificial respiration. If breathing becomes laboured, give oxygen. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns to skin, eyes, respiratory tract and gastrointestinal tract. Material is edestructive to all body tissues. May be fatal if swallowed. Harmful if inhaled.

4.3 Indication of any immediate attention and special treatment needed

Immediate attention is required in all cases.

Perform endoscopy in all cases of suspected potassium hydroxide ingestion. In cases of severe oesophageal corrosion, the use of therapeutic doses of steroids should be considered. General supportive measures with continual monitoring of gas exchange, acid-base balance, electrolytes, and fluid intake are also required.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Do not use water. Suitable extinguishing media for the surrounding fire should be used.

5.2 Special hazards arising from the substance or mixture

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

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

Ensure adequate ventilation. Keep unnecessary and unprotected people away from area of spill. Refer to section 8 of SDS for personal protection details. Remove contaminated clothing immediately.

6.2 Environmental precautions

Do not flush large volumes of alkaline residues to the sewer.

6.3 Method for cleaning up

Contain and recover liquid when possible. Residues from spills can be diluted with water, then neutralised with dilute acid such as acetic, hydrochloric or sulfuric. Absorb neutralised caustic residue on clay, vermiculite or other inert substance and package in a suitable container 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

Wash hands after handling. Wash clothing after handling. Do not mix with acids, oxidisers or organic materials.

7.2 Condition for safe storage, including any incompatibilities

Keep container tightly closed. Protect from physical damage. Store in a cool dry ventilated area away from sources of extreme heat moisture and incompatibilities. Store above 4 degrees centigrade to prevent freezing. Do not store with aluminium or magnesium. Do not mix with acids, oxidisers or organic materials. Containers of this material may be hazardous when empty since they retain product residues.

7.3 Specific end use(s)

No further details

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

POTASSIUM HYDROXIDE

UK - 15 min. STEL: 2 mg/m3

8.2 Exposure controls

Ensure there is sufficient ventilation of the area. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Eye/face protection: Use chemical safety goggles and/or a full face shield where splashing is possible. A source of running water or other eyewash provisions should be nearby.

Skin protection:

Hand protection: Protective gloves.

Other: Protective clothing.

Respiratory protection: Not required during normal use.

Thermal hazards: Not relevant

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Colourless liquid
Odour:	Odourless
Odour threshold:	n.a.
pH:	12.5-13.5.
Melting point/freezing point:	-3.9 °C
Initial boiling point and boiling range:	105 °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:	1.19
Solubility:	Miscible in water
Partition Coefficient: n-octanol/water:	n.a.
Auto-ignition temperature:	n.a.
Decomposition temperature:	n.a.
Viscosity:	n.a.
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

Potassium hydroxide in contact with acids and organic halogen compounds, especially trichloroethylene, may cause violent reactions. Contact with nitro methane and other similar nitro compounds causes formation of shock-sensitive salts. Contact with metals such as aluminium, magnesium, tin and zinc cause formation of flammable hydrogen gas. Potassium hydroxide, even in fairly dilute solution, reacts readily with various sugars to produce carbon monoxide. Precautions should be taken including monitoring the tank atmosphere for carbon monoxide to ensure safety of personnel before vessel entry.

10.4 Conditions to avoid

Heat. Incompatibles.

10.5 Incompatible materials

Acids, organic halogen compounds, nitro compounds, metals, various sugars.

10.6 Hazardous decomposition products

Carbon Monoxide. Shock sensitive salts, Decomposition by reaction with nonferrous metals releases flammable and explosive hydrogen gas.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Test	Species	End-Point	Value
Oral	Rat	LD50	275 mg/kg
Dermal	Human	24H	50 mg
Dermal	Rabbit	24H	50 mg
Dermal	Guinea pig	24H	50 mg
Eye	Rabbit	24H	1 mg

Acute Toxicity: Harmful if swallowed. Causes burns. Swallowing may cause burns of mouth, throat and stomach. Scarring of tissue and death may result. Bleeding may occur. There may be vomiting and diarrhoea. A fall in blood pressure may occur. Symptoms may be delayed after exposure. May be fatal if swallowed. Harmful if inhaled.

Irritation: Skin exposure can cause irritation or burns with greater exposures. Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose, redness, itching or burning. Severe pneumonitis may occur.

Corrosivity: Yes. Causes burns to skin, eyes, respiratory tract, and gastrointestinal tract. Material is extremely destructive to all body tissues.

Sensitisation: Not expected to be a sensitiser

Repeated dose toxicity: Not expected to lead to concerns when compared to corrosivity

Carcinogenicity: Not expected to be carcinogenic.

Mutagenicity: Not expected to be mutagenic

Toxicity for reproduction: Not expected to be toxic for reproduction

Route of exposure: The main route of exposure is expected to be via dermal contact. Exposure may also occur via inhalation.

Symptoms related to the physical, chemical and toxicological characteristics: Causes burns to skin, eyes, respiratory tract, and gastrointestinal tract. Material is extremely destructive to all body tissues. May be fatal if swallowed. Harmful if inhaled. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract,

depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose, redness, itching or burning. Severe pneumonitis may occur.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This substance is not identified as a PBT substance.

12.6 Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal operations - 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.

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

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN 3266

14.2 UN proper shipping name

Corrosive Liquid, Basic, Inorganic, N.O.S. (contains potassium hydroxide)

14.3 Transport hazard class(es)

Class 8

14.4 Packing group

II

14.5 Environmental hazards

Not Environmentally Hazardous Substance

14.6 Special precautions for user

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 1
	Tunnel restriction code E
SEA (IMDG)	Not Marine Pollutant

	IMDG Code segregation group18 – Alkalis
	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

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).

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

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.

Risk phrases used in Section 3

R22: Harmful if swallowed.

R35: Causes severe burns.

R41: Risk of serious damage to eyes.

Legal disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.