

# G2G-UNIVERSAL™ SAFETY DATA SHEET

Issue 1, Version 0, Approved 08 October 2010

7 pages

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

## SECTION 1: IDENTIFICATION OF MIXTURE AND COMPANY

### 1.1 Product identifier

G2G-Universal

### 1.2 Relevant identified uses of the mixture and of the company

Pre-mixed universal coil cleaner.

### 1.3 Details of the supplier of the safety data sheet

DiversiTech UK Limited

Glaisdale Drive East

Nottingham

NG8 4LY

Phone: +44 115 900 5858

### 1.4 Emergency telephone number

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

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the mixture

Classification under CHIP: [Xi]; R36/38, R43.

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

Physicochemical hazards: Incompatible with acids and halogens. Contact with metals such as aluminium, magnesium, tin and zinc may cause formation of flammable hydrogen gas.

Human health: Irritating to eyes and skin. Swallowing can cause gastro-intestinal irritation, nausea, vomiting and diarrhoea. Effects from inhalation of mists and vapours vary from mild to moderate irritation of the upper respiratory tract, depending on severity of exposure.

Environment: Concentrated product is moderately harmful to aquatic organisms.

Please see Section 16 for full classification.

### 2.2 Label elements



Irritant

Risk phrases

R36/38: Irritating to eyes and skin.

R43: May cause sensitisation by skin contact.

Safety Phrases

S24: Avoid contact with skin.

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

S37: Wear suitable gloves.

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	0 - 5	[Xn] R22; [C] R35.
Sodium silicate	1344-09-8	239-981-7	0 - 5	[Xn] R22; [C] R35; [Xi] R41

## SECTION 4: FIRST-AID MEASURES

### 4.1 Description of first aid measures

Skin contact - Wash skin with soap and water for at least 15 minutes. If irritation develops or persists, get medical attention.

Eye contact - Immediately flush eyes with plenty of water for 15 minutes, lifting lower and upper eyelids occasionally. If irritation persists, get medical attention.

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

## **4.2 Most important symptoms and effects, both acute and delayed**

Irritating to eyes and skin. Swallowing can cause gastro-intestinal irritation, nausea, vomiting and diarrhoea. Effects from inhalation of mists and vapours vary from mild to moderate irritation of the upper respiratory tract, depending on severity of exposure.

## **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**

Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

## **5.2 Special hazards arising from the substance or mixture**

May cause fire and explosions when in contact with incompatible materials.

## **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**

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Remove contaminated clothing immediately.

## **6.2 Environmental precautions**

Contain and recover liquid when possible. Do not flush large volumes of caustic residues to the sewer.

## **6.3 Method for cleaning up**

Contain and recover liquid when possible. Residues from spills can be diluted with water, 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.

## **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**

Empty containers may be hazardous as they retain product residues. Wash hands after handling. Do not mix with acids 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 well ventilated area. Store above 16 °C (60 °F) to prevent freezing. Do not store with aluminium or magnesium.

## **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/m<sup>3</sup>

### 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: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls.

Respiratory protection: A half-piece particulate respirator (EN 149) may be worn for up to ten times the exposure limit. 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:	Clear orange liquid
Odour:	Lavender odour
Odour threshold:	n.a.
pH:	11 - 12
Melting point/freezing point:	0 °C
Initial boiling point and boiling range:	108 °C
Flash point:	n.a.
Evaporation rate:	(Water = 1) > 1
Flammability limits %	n.a.
Vapour pressure:	17.5 mm Hg @ 20 °C
Vapour density	n.a.
Relative density:	Same as water
Solubility:	Miscible in water
Partition Coefficient: n-octanol/water:	n.a.
Auto-ignition temperature:	°C
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. Freezing. Incompatibles.

#### 10.5 Incompatible materials

Acids. Halogens. Contact with metals such as aluminium, magnesium, tin and zinc cause formation of flammable hydrogen gas.

#### 10.6 Hazardous decomposition products

Carbon Monoxide. Shock sensitive salts, Decomposition by reaction with non-ferrous metals releases flammable and explosive hydrogen gas. Potassium oxide.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Test	Species	End-Point	Value mg
Oral	Rat	LD50	365

Acute Toxicity: Swallowing can cause gastro-intestinal irritation, nausea, vomiting and diarrhoea. Effects from inhalation of mists and vapours vary from mild to moderate irritation of the upper respiratory tract, depending on severity of exposure.

Irritation: Prolonged skin exposure will produce irritation. If in contact with eye, there may be irritation and pain.

Corrosivity: According to the Corrositex test the breakthrough time for G2G-Universal is 62 minutes.

Sensitisation: May cause sensitisation by skin contact.

Repeated dose toxicity: Not expected to be of concern

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: Skin and eye contact

Symptoms related to the physical, chemical and toxicological characteristics: Eye and skin irritation. Swallowing can cause gastro-intestinal irritation, nausea, vomiting and diarrhoea.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

This material has exhibited moderate toxicity to aquatic organisms and terrestrial organisms.

### 12.2 Persistence and degradability

The inorganic components of this product are not subject to biodegradation. Not expected to persist in the environment.

### 12.3 Bioaccumulative potential

No bioaccumulation potential.

### 12.4 Mobility in soil

Readily absorbed into soil.

### 12.5 Results of PBT and vPvB assessment

This substance is not identified as a PBT substance.

## 12.6 Other adverse effects

Concentrated product is moderately harmful to aquatic organisms.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Disposal operations - Treat empty containers as hazardous. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Processing, use or contamination of this product may change waste management options.

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

Not regulated - not classified as dangerous goods for carriage under transport regulations  
CDG2009/ADR/RID/IMDG/ICAO

### 14.1 UN number

UN 2366

### 14.2 UN proper shipping name

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

### 14.3 Transport hazard class(es)

Class 8

### 14.4 Packing group

III

### 14.5 Environmental hazards

Not Environmentally Hazardous Substance or Marine Pollutant

### 14.6 Special precautions for user

Not applicable

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

Not applicable

Mode-specific information:

None Required (not dangerous goods)

## SECTION 15: REGULATORY INFORMATION

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

According to CHIP

Hazard symbols: Irritating



Irritant

Risk phrases

R36/38: Irritating to eyes and skin.

R43: May cause sensitisation by skin contact.

#### Safety Phrases

S24: Avoid contact with skin.

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

S37: Wear suitable gloves.

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.

R43: May cause sensitisation by skin contact.

## 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.