



SAFETY DATA SHEET

Product Name **XLW-32**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name BAKER HUGHES PRESSURE PUMPING
Address 108 Poole st , Welshpool , WA, AUSTRALIA, 6106
Telephone +61 8 9350 3800
Fax +61 8 9350 5453
Emergency 1800 988 778
Web Site <http://www.bakerhughes.com>
Synonym(s) 499630, 499796 - ITEM NUMBERS • XLW 32
Use(s) CROSSLINKING AGENT
SDS Date 02 May 2011

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

RISK PHRASES

R11 Highly flammable.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R60 May impair fertility.
R61 May cause harm to the unborn child.

SAFETY PHRASES

S1/2 Keep locked up and out of reach of children.
S7 Keep container tightly closed.
S16 Keep away from sources of ignition - No smoking.
S36/37 Wear suitable protective clothing and gloves.
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
S53 Avoid exposure - obtain special instructions before use.

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No. 1993 **DG Class** 3 **Subsidiary Risk(s)** None Allocated
Packing Group II **Hazchem Code** •3YE

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
METHANOL	C-H4-O	67-56-1	<90%
BORON OXIDE	B2-O3	1303-86-2	<20%
ADDITIVE(S)	Not Available	Not Available	remainder

4. FIRST AID MEASURES

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
Ingestion	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
Advice to Doctor	Treat symptomatically.
First Aid Facilities	Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

Flammability	Highly flammable. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones etc. when handling. Earth containers when dispensing fluids.
Fire and Explosion	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
Extinguishing	Dry agent, carbon dioxide, foam or water fog. Prevent contamination of drains or waterways.
Hazchem Code	•3YE

6. ACCIDENTAL RELEASE MEASURES

Spillage	Contact emergency services where appropriate. Use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.
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7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, removed from oxidising agents, acids, alkalis, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate fire protection systems.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds

Ingredient	Reference	TWA		STEL	
Boron oxide	SWA (AUS)	--	10 mg/m ³	--	--
Methanol	SWA (AUS)	200 ppm	262 mg/m ³	250 ppm	328 mg/m ³

Biological Limits

Ingredient	Reference	Determinant	Sampling Time	BEI
METHANOL	ACGIH BEI	Methanol in urine	End of shift	15 mg/L

Engineering Controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

PPE

Wear splash-proof goggles, neoprene or barrier or PVC gloves and coveralls. Where an inhalation risk exists, wear: a Type A (Organic vapour) respirator. If spraying, wear: a Type A-Class P1 (Organic gases/vapours and Particulate) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	CLEAR COLOURLESS LIQUID	Solubility (water)	SOLUBLE
Odour	ALCOHOLIC ODOUR	Specific Gravity	0.885
pH	NOT AVAILABLE	% Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	HIGHLY FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	20°C (cc)
Boiling Point	NOT AVAILABLE	Upper Explosion Limit	NOT AVAILABLE
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT AVAILABLE
Evaporation Rate	NOT AVAILABLE		
Autoignition Temperature	NOT AVAILABLE	Decomposition Temperature	NOT AVAILABLE
Partition Coefficient	NOT AVAILABLE	Viscosity	NOT AVAILABLE

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended conditions of storage.
Conditions to Avoid	Avoid heat, sparks, open flames and other ignition sources.
Material to Avoid	Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid), alkalis (eg. hydroxides), heat and ignition sources.
Hazardous Decomposition Products	May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition.
Hazardous Reactions	Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Toxic - irritant. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Methanol primarily affects the central nervous system, with symptoms of headache, nausea, vomiting and dizziness. Damage to the optic nerves may occur with chronic or high level exposure, causing visual problems and possible blindness. Experimental teratogen.
Eye	Irritant. Contact may result in irritation, lacrimation, pain, redness and conjunctivitis. May result in burns with prolonged contact.
Inhalation	Irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea and headache. Chronic exposure to vapour may result in dizziness, drowsiness, weakness, fatigue, breathing difficulties and unconsciousness.
Skin	Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis. May be absorbed through skin with harmful effects.
Ingestion	Toxic. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, dizziness and drowsiness. Ingestion of large quantities may result in acidosis, visual effects, optic nerve damage, circulatory and respiratory collapse, coma and death.
Toxicity Data	<p>METHANOL (67-56-1)</p> <p>LC50 (Inhalation): 50 g/m³/2 hours (mouse)</p> <p>LCLo (Inhalation): 1000 ppm (monkey)</p> <p>LD50 (Ingestion): 5628 mg/kg (rat)</p> <p>LD50 (Skin): 15,800 mg/kg (rabbit)</p> <p>LDLo (Ingestion): 143 mg/kg (human)</p> <p>LDLo (Skin): 393 mg/kg (monkey)</p> <p>TCLo (Inhalation): 300 ppm human (visual effects)</p> <p>TDLo (Ingestion): 3429 mg/kg (man-visual change)</p> <p>BORON OXIDE (1303-86-2)</p> <p>LD50 (Ingestion): 3163mg/kg (mouse)</p> <p>LD50 (Intraperitoneal): 1868 mg/kg (mouse)</p>

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12. ECOLOGICAL INFORMATION

Environment If released to the atmosphere methanol degrades via reaction with photochemically produced hydroxyl radicals. It is expected to biodegrade in both soil and water. If spilt on soil it is expected to be susceptible to significant leaching, as well rapid evaporation from dry surfaces is likely to occur. Chronic aquatic toxicity possible above 32 ppm.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Wearing the protective equipment outlined, ensure all ignition sources are extinguished. For small quantities, absorb on paper, sand or similar and evaporate under a fume cupboard or open area. For large volumes, atomise into incinerator (mixing with more flammable solvent if required) or recycle by gravimetric separation, distilling & reusing. Contact the manufacturer for additional information if required.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION



CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

Shipping Name	FLAMMABLE LIQUID, N.O.S.				
UN No.	1993	DG Class	3	Subsidiary Risk(s)	None Allocated
Packing Group	II	Hazchem Code	*3YE	GTEPG	3A1

IATA

Shipping Name	FLAMMABLE LIQUID, N.O.S.				
UN No.	1993	DG Class	3	Subsidiary Risk(s)	None Allocated
Packing Group	II				

IMDG

Shipping Name	FLAMMABLE LIQUID, N.O.S.				
UN No.	1993	DG Class	3	Subsidiary Risk(s)	None Allocated
Packing Group	II				

15. REGULATORY INFORMATION

Poison Schedule Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information National Industrial Chemicals Notification and Assessment (NICNAS) Registration number: 2475.

WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

WORKPLACE CONTROLS AND PRACTICES: Unless a less toxic chemical can be substituted for a hazardous substance, **ENGINEERING CONTROLS** are the most effective way of reducing exposure. The best protection is

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to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.

ABBREVIATIONS:

ACGIH - American Conference of Industrial Hygienists.
ADG - Australian Dangerous Goods.
BEI - Biological Exposure Indice(s).
CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.
CNS - Central Nervous System.
EC No - European Community Number.
HSNO - Hazardous Substances and New Organisms.
IARC - International Agency for Research on Cancer.
mg/m³ - Milligrams per Cubic Metre.
NOS - Not Otherwise Specified.
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm - Parts Per Million.
RTECS - Registry of Toxic Effects of Chemical Substances.
STEL - Short Term Exposure Limit.
SWA - Safe Work Australia.
TWA - Time Weighted Average.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Report Status

This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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End of Report