MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet complies with the Canadian Controlled Products Act

SECTION 1 - IDENTIFICATION

PRODUCT IDENTIFIER: **DOZER**

PRODUCT USE: To remove lime soaked mud from mobile equipment

SUPPLIER:

Active Chemicals Ltd.
#1 – 7157 Honeyman Street, Delta, British Columbia, Canada, V4G 1E2
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SECTION 2 – COMPOSITION

HAZARDOUS INGREDIENTS	% (W/W)	CAS NUMBER	LD_{50}	LC_{50}	EXPOSURE LIMITS (ACGIH)*
Alkylbenzenesulphomate propanamine	5 - 15	26264-05-1	1836 mg/kg (oral/rat)	No data	Not established
Alkyl ether	5 - 15	68439-46-3	1400 mg/kg (oral/rat)	No data	Not established
Disodium capriloamphodipropionate	2 - 7	68815-55-4	34 g/mg (oral/rat)	No data	Not established
Butoxy propyl propanol	1 - 5	29911-28-2	4400 mg/kg (oral/rat)	No data	10 mg/m^3 for aerosols
Propylene glycol ethers	1 - 3	34590-94-8	5350 mg/kg (oral/rat)	No data	Not established
Hydrotreated light distillate	1 - 5	64742-47-8	1200 mg/kg (oral/rat)	No data	Not established
Non hazardous ingredients or those below disclosure requirements	50 - 85	Not applicable	Not applicable	Not applicable	Not applicable

*Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

May be irritating to skin, eyes and respiratory tract. Depending upon severity of exposure, eye damage may occur affecting the cornea. May caue skin sensitization after repeated or prolonged exposure. Inhalation of mists and vapours will irritate the upper respiratory tract

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EFFECTS OF SHORT-TERM (ACUTE) EXPOSURE:

INHALATION: Inhalation of mists or aerosols will cause irritation of the mucous membranes in the upper respiratory tract. Production of phlegm will occur causing coughing, moderate to severe irritation, and difficulty breathing. In severe cases, inhalation of vapours into the lungs may cause permanent lung damage and pulmonary edema.

SKIN CONTACT: May cause sensitization after prolonged use (see chronic effects). May be irritating to skin to the skin. Upon contact, persons with pre-disposed skin conditions may experience a burning sensation which may produce a rash.

EYE CONTACT: May be severely irritating to the eyes.. Damage can range from severe irritation and mild scarring of the cornea.

INGESTION: Based on animal information, this product has very low toxicity. In cases of gross ingestion, gastro-intestinal upseta may occur, resulting in nausea, vomiting, diahhrea and dizziness. Ingestion of this chemical may result in risk of aspiration into the lungs resulting in pulmonary edema, permanent lung damage and death in severe cases.

EFFECTS OF LONG-TERM (CHRONIC) EXPOSURE:

Repeated or prolonged exposure of the skin may cause sensitization. Also, repeated use may cause skin irritation by defatting and drying the skin. Dermatitis may result. Longterm exposure to mists or aerosols may cause reduced lung function due to scarring. Accumulation in the body is not expected.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Pre-existing skin and respiratory disorders.

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove source of contamination or remove victim to fresh air. If breathing is difficult, it may be beneficial for a trained person to give oxygen. Ensure victim is completely at rest - allow no physical exertion. Symptoms of pulmonary edema may be delayed for up to 48 hours. Immediately transport victim to an emergency medical facility.

INGESTION: Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or is convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 300 mL (10 oz.) of water. If vomiting ocurrs naturally, have the victim lean forward to reduce risk of aspiration. Repeat administration of water. Immediately transport to emergency medical facility.

SKIN CONTACT: Avoid direct contact. Under running water, remove contaminated clothing, shoes, and leather goods such as watchbands and belts. Immediately flush contaminated areas with lukewarm, gently running water and soap for at least 10 minutes. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

EYE CONTACT: Check for and remove contacts. Immediately flush contaminated eye(s) with lukewarm, gently running water for at least 15 minutes while holding the eyelid(s) open. Take care not to rinse contaminated water into a non-affected eye. Neutral saline solution may be used for flushing if available. Seek medical advice if an irritation occurs and persists.

GENERAL COMMENTS: Provide general supportive measures (comfort, warmth, rest).

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SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT:	None to 100°C (PMCC)	LOWER FLAMMABILITY LIMITS:	Not available	SENSITIVITY TO MECHANICAL IMPACT:	Not sensitive
AUTOIGNITION TEMPERATURE:	Not available	UPPER FLAMMABILITY LIMITS:	Not available	SENSITIVITY TO STATIC DISCHARGE:	Not sensitive

HAZARDOUS COMBUSTION PRODUCTS: May liberate oxides or pyrolysis products of carbon/hydrogen and sulphur/nitrogen.

EXTINGUISHING MEDIA: Carbon dioxide, water, foam, dry chemical. This product is not flammable. Use extinguishing media suitable for surrounding fire fighting situations.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire from a safe distance. Wear adequate personal protective equipment. Approach fire from upwind. Remove or isolate materials not involved in the fire if it can be done without risk. At high temperatures, fuming may occur. Chemical resistant clothing and NIOSH/MSHA approved positive pressure SCBA may be required. Water may be used to keep fire-exposed containers cool to prevent rupture. Use water spray to cool all nearby fire exposed surfaces.

UNUSUAL FIRE and EXPLOSION HAZARD: None known.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Evacuate unnecessary personnel from spill area. Wear appropriate personal protective equipment. Ventilate area. Remove chemicals which can react with the spilled material if it can be done without risk. Do not touch spilled product.

ENVIRONMENTAL PRECAUTIONS: Implement spill control plan. Stop or reduce leak if safe to do so. Prevent from entering sanitary or storm sewers, waterways, or confined spaces by diking with inert materials such as earth or sand.

REMEDIATION MEASURES: Restrict access to area until completion of cleanup. Ensure cleanup is conducted by trained personnel only. Use all appropriate personal protective equipment. Contain and absorb spill with inert materials. Pump large spills into appropriate waste containers. For small spills, collect and repackage for intended use or absorb onto suitable absorbent such as clay, soil, or vermiculite. Flush cleaned area with water. Reuse product, if possible. Dispose of in accordance with all local, provincial, and federal regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Keep containers closed when not in use. It is an inhalation hazard of misted or sprayed. Before handling, it is very important that engineering controls are operating and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Maintenance and emergency personnel should be advised of potential hazards.
Report leaks, spills or ventilation failures. Any signs of illness should be reported immediately to supervisory personnel. Avoid generating vapours and mists. Prevent release into workplace air and contact with contaminated equipment.

STORAGE: Store in a dry, cool, well-ventilated area away from incompatible materials. Keep from freezing. Do not store in temperatures exceeding 30°C. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Keep storage area separate from work areas. Inspect periodically for damage or leaks. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area.

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SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS: Use general or local exhaust ventilation to maintain exposure below the exposure limits.

RESPIRATORY PROTECTION: Not normally required for most uses. If use produces mists or aerosols, use an approved NIOSH half-face or full face respirator. Knowledge of respiratory hazards and respiratory protection is essential to ensure appropriate selection of respirators.

NOTE: Air purifying respirators do not protect against oxygen deficient atmospheres.

SKIN PROTECTION: Wear impervious gloves fabricated from butyl or natural rubber, nitrile or neoprene. Avoid use of leather and wool. Protect skin by use of long sleeved coveralls.

EYE AND FACE PROTECTION: Eye protection is required. Chemical safety goggles are recommended. A full face shield may also be necessary. The wearing of contact lenses is not recommended.

OTHER: Have a safety shower and eye wash station readily available in the immediate work area.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Thin liquid	FREEZING POINT:	< 15 ^{o}C
ODOUR:	Slight petroleumt odour	BOILING POINT:	> 93.3 ^{o}C
ODOUR THRESHOLD:	Not determined	CRITICAL TEMPERATURE:	Not determined
pH:	4 – 7 (10% solution)	RELATIVE DENSITY:	1.05 @ 20^{o}C
VAPOUR PRESSURE:	Not determined	PARTION COEFFICIENT: n-OCTANOL/WATER	> 1.0
SOLUBILITY:	Completely soluble	EVAPORATION RATE:	Not determined.
VAPOUR DENSITY:	Not determined	VOC CONTENT:	Not determined
VISCOSITY:	Not determined	% VOLITILES:	Not determined

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal storage conditions.

INCOMPATIBILITY: Strong oxidizing agents, and strong alkalis such as sodium hydroxide or potassium hydroxide.

HAZARDOUS DECOMPOSITION PRODUCTS: May liberate oxides or pyrolysis products of carbon/hydrogen and sulphur/nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur

SECTION 11 -TOXICOLOGICAL INFORMATION

ROUTE(S) OF ENTRY: Inhalation (major), Ingestion (moderate), Eye contact (major), Skin contact (major).

ACUTE EXPOSURE:	CHRONIC EXPOSURE	SENSITIZATION:
See Section 3	See Section 3	Yes (skin)
IRRITANCY:	**MUTAGENICITY:**	**REPRODUCTIVE TOXICITY:**
Moderate to severe eye, skin and respiratory irritant.	No reports	No reports

TERATOGENICITY:	CARCINOGENICITY:
Not expected to be teratogenic.	Not expected to be carcinogenic.
POTENTIAL FOR ACCUMULATION:	**SYNERGISTIC PRODUCTS:**
Not expected to accumulate.	None reported.

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SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

No available data.

ECOLOGICAL FATE INFORMATION:

Propylene glycol ethers:

TERRESTRIAL FATE: In a soil-water matrix, propylene glycol ethers will be highly mobile. Sorption to soil particulates will be minimal. The primary removal mechanism in soil will probably be biodegradation. However, propylene glycol ethers which are on the surface of dry soil may evaporate.

AQUATIC FATE: Due to its miscibility in water, propylene glycol ethers are not expected to sorb to sediments or to bioconcentrate. Evaporation from the water to air is also expected to be minimal due to the low vapor pressure and high solubility of propylene glycol ethers. The primary degradation mechanisms in water is probably biodegradation, while photolysis and hydrolysis are probably insignificant.

ATMOSPHERIC FATE: Propylene glycol ethers in the atmosphere are estimated to have a half-life of 3-4 hours. In addition to photochemical reactions, propylene glycol ether may be removed from the atmosphere by washout

This ingredient is not expected to bioaccummulate.

SECTION 13 - DISPOSAL CONSIDERATIONS

Canadian Environmental Protection Act: All ingredients are listed in the DSL. Dispose of in accordance with all federal, provincial/state, and local regulations. Consult with your local supplier for additional information.

SECTION 14 - TRANSPORT INFORMATION

CANADIAN TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

Not regulated

INTERNATIONAL AIR TRANSPORT ASSOCIATION REGULATIONS:

Not regulated

INTERNATIONAL MARITIME ORGANIZATION REGULATIONS:

Not regulated

SECTION 15 - REGULATORY INFORMATION

CANADIAN FEDERAL REGULATIONS:

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All ingredients are on the Domestic Substances List (DSL).

WHMIS CLASSIFICATION: D2B

SECTION 16 - OTHER INFORMATION

ORIGINAL PREPARATION DATE:	July 31, 2009
PREPARED BY:	Kel-Ex Agencies Ltd., from information supplied by Active Chemicals Ltd.
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