MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet meets or exceeds the requirements of the Canadian Controlled Product Regulations (WHMIS)

1. Product and Supplier Identification

Product: **EFF-OFF!**

Product Use: Efflorescence Remover

Supplier: **CBR Products,**
#102 – 876 Cordova Diversion,
Vancouver, BC V6A 3R3
Emergency Telephone: (604) 254-3325

Manufacturer: As above

2. Composition

Component	% (w/w)	Exposure Limits
Organic acid salt (CAS No. 506-89-8)	47-53	TLV-TWA : not established PEL-TWA : not established

3. Hazards Identification

Routes of Entry:

Skin Contact: Moderate Eye Contact: Major Ingestion: Major Inhalation: Moderate

Acute Health Effects: Direct contact may cause minor irritation of the skin. In persons predisposed to skin problems, minor rash may occur. Contact with the eyes may cause burns that may affect corneal opacity. Although ingestion is not a typical route of entry, ingestion may be harmful, or fatal depending upon quantity consumed. Due to the low volatility of this product, inhalation is unlikely. If product is atomized or misted, inhalation will cause moderate to severe irritation of the upper respiratory tract.

Chronic Health Effects: Prolonged contact with the skin may cause drying, defatting, redness, rash leading to dermatitis. Chronic inhalation of mists or vapours may cause irreversible lung damage.

4. First Aid Measures

EYE CONTACT: Flush contaminated eye(s) with lukewarm, gently running water for 30 minutes, holding eyelids open. Seek medical attention if irritation persists.

SKIN CONTACT: Wash affected area immediately with mild soap and water and continue for 15 minutes. If irritation persists, seek immediate medical attention. Remove any contaminated clothing and launder clothing before reuse.

INHALATION: This is an unlikely route of entry, but if victim has been exposed to vapours remove to fresh air. If breathing has stopped, a trained person should perform artificial respiration. Get medical attention immediately.

INGESTION: ***Do not*** induce vomiting. Give 3-4 glasses of water to dilute material. If vomiting occurs naturally, have victim lean forward with head between knees to reduce risk of aspiration. Seek medical attention.

5. Fire Fighting Measures

Flash point:	Not applicable
Autoignition temperature:	Not applicable. See information under "Fire Fighting Instructions"
Lower Explosive Limit:	Not applicable
Upper Explosion Limit:	Not applicable
Sensitivity to Impact:	Not sensitive.
Sensitivity to Static Discharge:	Not sensitive.

Conditions to Avoid: Avoid heating to 100^{o}C to avoid an exothermic reaction releasing carbon dioxide gas. Prevent contact with metals that may release flammable hydrogen gas.

Hazardous Combustion Products: Burning may produce oxides of carbon, nitrogen, and chlorine.

Extinguishing Media: Use a means of extinguishing surrounding fire. Use water spray to cool containers.

Fire Fighting Instructions: This product is an aqueous solution, and will not combust. Do not enter confined fire space without proper personal protection. Use approved positive pressure self-contained breathing apparatus.

6. Accidental Release Measures

Personal Protection: See Section 8 for proper protective equipment to be worn while cleaning an accidental spill.

Environmental Precautions: Not expected to have any environmental impact.

Cleanup Procedures: Evacuate and ventilate area! Make sure spill does not contact any materials listed in Section 10, Incompatibility. Take precautions to prevent entry of the product into the environment. Absorb onto sand or other inert absorbent media. Shovel into approved closable waste containers for disposal. Thoroughly flush residue with water.

7. Handling and Storage

Handling Procedures: *Keep out of reach of children*! Use in an adequately ventilated area. Keep container tightly closed when not in use. Avoid methods of use that will cause misting of product. Launder clothing before reuse. Wash face and hands thoroughly after handling and before eating, drinking, or using tobacco products. Keep from freezing.

Storage: Store in cool, dry place and in an upright position to prevent leakage and away from acids. Product must be stored in fibreglass, polyethylene, or polypropylene drums at temperatures below 48°C. Do not store in metal drums.

8. Exposure Controls, Personal Protection

Engineering Controls: If used indoors, ensure adequate ventilation by using local exhaust.

Respiratory Protection: If product is atomized, or heated to product vapours, use a NIOSH approved organic vapour respirator. When cartridge type respirators are used, ensure that the cartridges are changes frequently. Dust masks will not remove acidic vapours or mist.

Skin Protection: Wear impervious gloves and clothing such as nitrile rubber or neoprene gloves and apron to prevent skin contact.

Eye and Face Protection: Chemical splash-proof goggles or a full face shield must be worn at all times.

Footwear: As required by worksite rules.

Other: Eye wash station should be located near work area.

9. Physical and Chemical Properties

Appearance:	Clear light amber liquid	**Vapour Density:**	No data (air = 1)
		Freezing Point	-1 °C
Odour:	Mild	**Boiling Point:**	100 °C
Odour Threshold:	No data	**Critical Temperature:**	No data
pH:	0.5-1.0	**Relative Density:**	1.05 – 1.15 (water = 1)
Vapour Pressure:	No data.		
Solubility:	Soluble in water in all concentrations.	**Partition Coefficient:**	No data
		Evaporation Rate:	No data

10. Stability and Reactivity

Chemical Stability and Reactivity: Product is stable up to 110°C. Product may react with strong mineral acids.

Incompatibility: Avoid contact with strong oxidizers. This product is extremely hazardous when in contact with chlorates or nitrates. Contact with hypochlorites such as household bleach may liberate toxic gases. Contact with alkaline materials such as household ammonia will cause liberation of heat. Hydrogen may be released upon contact with metals such as aluminum.

Hazardous Decomposition Products: Oxides of carbon, nitrogen, and chlorine.

Hazardous Polymerization: Hazardous polymerization will not occur.

11. Toxicological Information

Acute Exposure Theoretical oral LD_{50} for the product is greater than 25 g/kg (oral/rat). The LD_{50} (dermal) has not been determined.

Chronic Exposure: See Section 3.
Exposure Limits: See Section 2.
Irritancy: See Section 3.
Sensitization: See Section 3.
Carcinogenicity: Not listed by IARC, NTP or ACGIH
Teratogenicity: Not available
Reproductive toxicity: Not available
Mutagenicity: Not listed
Synergistic products: None reported.

12. Ecological Information

Environmental toxicity: No data available.

Biodegradability: No data available.

13. Disposal Considerations

Canadian Environmental Protection Act: All ingredients are listed on the DSL. Dispose according to all local, provincial and federal requirements.

14. Transport Information

Canadian Transportation of Dangerous Goods Regulations: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(Urea Monohydrochloride), Class 8, UN 3265, P.G. III

International Air Transport Association (IATA): Corrosive Liquid, Acidic, Organic, n.o.s. (Urea Monohydrochloride), Class 8, UN 3265, P.G. III.

International Maritime Organization (IMO): Corrosive Liquid, Acidic, Organic, n.o.s. (Urea Monohydrochloride), Class 8, UN 3265, P.G. III.

15. Regulatory Information

Canadian Federal Regulations:

Canadian Environmental Protection Act: All ingredients are on the Domestic Substances List.
WHMIS Classification: E

16. Other Information

Original Preparation Date: February 17, 2003

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Comments: This Material Safety Data Sheet was prepared using information provided by AD Components Ltd., and CCINFO.

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