

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT SOURCE AND IDENTITY

Supplier identity and address	Product description:	Date: Sept. 30, 2008
AS Inc	Name: Aluminum Descaler	
980 77th Avenue	Purpose: Safe descaling	
Oakland, CA 94621	Proprietary Formula Code: GP NCA	
Emergency phone: 800-463-9300	Product information: 800-369-8056	

SECTION 2 - SHIPPING CLASSIFICATION

Proper Shipping Name, Hazard Class, UN/NA Number Packing Group, Emergency Response Guide Number
Labels required per 49 CFR 172.101:
Size for "Limited quantity" per 49 CFR 173.150-4:
Reportable Quantity ("RQ") per 49 CFR 172.101:

SECTION 3 - SAFETY RATINGS AND HAZARDOUS INGREDIENT INFORMATION

Reporting required by Title III Sec 313, 40 CFR 372, 29 CFR 1910.1200	Exposure Limit Values
CAS# 313 dm Material or Component	% RQ# TWA STEL
77-92-9 No na Citric acid, anhydrous	4-6 None Not established
67-63-0 Yes 1 Isopropanol	1 None 400 ppm 400 ppm
Also contains materials which can contribute to eye and skin irritation but for which no exposure have been established.	
dm = de minimus, the minimum percent which must be reported in discharge or spill.	

No component is listed in "Threshold Limit Values and Biological Exposure indices for 2008" from ACGIH except as noted above. Components listed in TITLE III SEC 313 (EPCRA) are indicated by "Yes" above.

Note: The purpose of this MSDS is to provide safe handling, shipping and disposal information for users of the product. It is not intended to, nor does it, provide complete or extensive toxicological data on the product or its components. Users who require this information are referred to primary suppliers of the ingredients of interest.

Emergency overview: Acidic scale remover. Follow label directions. Do not store in metal containers.

Keep out of eyes and off skin. Keep containers closed when not in use.

Hazard Categories:	Health	Fire	Pressure	Reactivity	Reference 49 CFR 171.8, OSHA 29 CFR 1910.1200 and SARA 302/311/312/313.
Immediate	Yes	No		No	
Delayed	No	NA		NA	

HMS Hazard ratings: Health 1 Fire 0 Instability 0 Other B (Glasses, gloves)

NFPA 704 Hazard Ratings: Health 1 Flammability 0 Reactivity 0 Special None

Hazard Ratings: Least: 0 Slight: 1 Moderate: 2 High: 3 Extreme: 4

Other than those listed, there are no ingredients with ACGIH exposure limits present at 1% or above, and no known carcinogens present at 0.1% or above.

Note: HMS and NFPA ratings are subjective evaluations of hazards and can differ between preparers. They are intended and useful only as a rapid approximation of the hazards rated.

Threshold limit value: Not established on product.

TOSCA Status: All ingredients listed

California Prop. 65: None Ingredients on cancer lists: None

Reproductive implications: None

SECTION 4 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid.	Flash point deg. F (cc):	None
Odor:	Slight alcohol	Initial boiling point deg. C:	Not determined
Specific gravity:	1.03	Vapor pressure 20 deg C:	NA
pH reaction:	4-5	Freezing point deg. C:	NA
		Solubility in water:	100%

California Rule 102 (66): Contains no photo chemically active materials.

SECTION 5 - SAFE HANDLING AND STORAGE

General	Do not store in metal containers. Keep lid on containers when not in use. Wipe up spills promptly. Keep off of skin and out of eyes. Use standard industrial good practices.
Protective equipment	
Eyes	Safety glasses or goggles should be worn if there is possibility of eye contact.
Skin	Impermeable gloves such as rubber, PVC or neoprene are recommended.
Respiratory protection	None normally required.
Ventilation	No special ventilation is usually required.
Other	None

SECTION 6 - HEALTH SAFETY DATA

Effects of acute or chronic over exposure	
Eyes	Irritating to eyes. No chronic effects known.
Skin	Can cause irritation from repeated exposure.
Inhalation	Vapors or mists can be irritating, cause dizziness and disorientation.
Ingestion	Do not take internally. Not a likely source of chronic exposure.

SECTION 7 - PHYSICAL STABILITY AND REACTIVITY DATA

Explosive limits	Flash point:	See Sec 4
Lower None	Upper None	Conditions to avoid: None known.
Chemical stability	Stable	Hazardous decomposition products: Combustion produces oxides of carbon.
Hazardous polymerization	Cannot occur	Incompatibility: alkaline materials.

SECTION 8 - EMERGENCY RESPONSE PROCEDURES

Fire	Extinguishing media	Use equipment appropriate to main cause of fire.
	Special procedures	None
	Unusual hazards	None
First Aid	Eyes	Flush with water for at least 15 min. Seek medical attention. See Sec. 6.
	Skin	Wash exposed skin with soap and water until gone. Remove affected clothes rinse off product and wash clothes before reuse.
	Inhalation	If affected, remove individual to fresh air, get medical attention at once if there is any discomfort.
	Ingestion	Dilute by giving large amounts of milk or water. Get medical attention immediately. Do not induce vomiting.
Spills	Small / large spill	Immediately remove uninvolved personnel. Small amounts may be flushed to drain. Comply with federal, state and local regulations on reporting spills. Large spills may be neutralized with sodium carbonate or other alkaline material. Keep out of waterways and storm sewers.

Product as made does not qualify as an "Unlisted Hazardous Waste" for disposal situations.

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MSDS prepared by: R.N. Miller 1-800-342-3577