ALUMINIUM BRIGHTENER

PRODUCT LABEL AND DATA SHEET

PRODUCT CODE: MCAC

About Product

Aluminium Brightener is a liquid cleaner that contains acids and surfactants that are ideal for the brightening of aluminium.

Properties

- Extremely Effective
- Brightener
- Easy to Use
- Free Rinsing
- Areas of use - Aluminium metals.

Colour: Yellow
Appearance: Liquid
pH: 2.00 - 3.00

Density: 1.05 Kg/Lt
Packaging: 1Lt, 5Lt; 25Lt
Smell: Acid

Storage & Handling

METHOD OF APPLICATION

DANGEROUS PRODUCT. WEAR GLOVES. Dilute depending on types of Scale to be removed. Always wash from bottom upwards to avoid streaking.

DILUTION RATIO

General cleaning up to 1:10 with wate r
Heavy duty cleaning up to 1:50 with water

Health & Safety

IF INGESTED, SEEK MEDICAL ATTENTION

Eyes:	Rinse with water. Seek medical care.
Ingestion:	Drink water. Seek medical care.
Skin:	Wash contact area with soap and water.
Inhalation:	Remove patient to fresh air.

IMPORTANT: Always keep product out of children's reach. Ensure that the product lid remains closed and tightened at all times. Keep away from extreme heat and naked flame.

WE DO NOT ACCEPT LIABILITY FOR CLAIMS OF ANY KIND FOR ANY LOSS INCLUDING, WITHOUT LIMITATION, CONSEQUENTIAL LOSS, INJURY OR DAMAGE ARISING FROM THE USE OF THE PRODUCTS WHICH ARE THE SUBJECT MATTER HEREOF.

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Section 1. Identification

GHS product identifier : Aluminium cleaner

Product type : ACID Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Aluminium cleaner is a liquid cleaner that contains acids and surfactant that are ideal for brightening and cleaning aluminium parts

Section 2. Hazards identification

Classification of the substance or mixture : ACUTE TOXICITY: ORAL - Category 5
SKIN CORROSION/IRRITATION - Category 1A
EYE IRRITATION - Category 1

SANS 10234: 2007 (GHS) label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Harmful if swallowed.
Causes skin burns and eye burns

Precautionary statements

General : Read label before use. Keep out of reach of children.

Prevention : Wear protective gloves. Wear eye or face protection: Recommended: splash goggles. Wear protective clothing: Recommended: overall. Avoid release to the environment. Wash hands thoroughly after handling.

Response : IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.
EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

Other hazards which do not result in classification : None identified.

Section 3. Composition/information on ingredients

Substance/mixture : INORGANIC ACID

CAS number/other identifiers

Ingredient name	%	CAS number
SULPHURIC ACID	10-20	7664-93-9
NONYLPHENOL	1 - 5	25154-52-3
AMMONIUM BIFLOURIDE FLAKES	1 - 10	1341-49-7

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes.

Inhalation : None identified.

Skin contact : Flush contaminated skin with water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Apply cream onto any skin that may dry out from contact of product

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Section 4. First aid measures

Eye contact : Causes eye burns .

Inhalation : No specific data.

Skin contact : Causes severe dying out / defating and or burning of skin.

Ingestion : May be harmful if swallowed. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
Burning
redness
drying out may occur

Ingestion : Adverse symptoms may include the following:
severe stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Acid product

Protection of first-aiders : Neutralize the burn immediately
No action shall be taken involving any personal risk or without suitable training.

Specific treatments :

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : No specific data.

Special protective actions for fire-fighters Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel :

No action shall be taken involving any personal risk or without suitable training.
Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

Environmental precautions :

Avoid dispersal of large spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.
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Large spill : Stop leak if without risk.

Section 7. Handling and storage

Precautions for safe handling :

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.
Do not ingest. Avoid release to the environment.

Keep in the original container or an approved alternative
made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 5 to 40°C (50 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits

Recommended monitoring procedures : No specific data.

Appropriate engineering controls : No specific data.

Environmental exposure controls : No specific data.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Recommended: splash goggles

Skin protection

Hand protection : Recommended: Chemical-resistant, impervious gloves

Body protection : Recommended: overall

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed.

Respiratory protection : Recommended: disposable particulate mask to protect against splashing

Section 9. Physical and chemical properties

Appearance

Physical state	:	Liquid. [Viscous liquid.]
Color	:	Clear
Odor	:	STRONG ACID.
Odor threshold	:	No data available.
pH	:	1 - 3
Melting point	:	-20°C (-4°F)
Boiling point	:	100°C (212°F)
Flash point	:	Product does not sustain combustion.
Burning time	:	Not applicable.
Burning rate	:	Not applicable.
Evaporation rate	:	No data available.
Flammability (solid, gas)	:	No data available.
Lower and upper explosive (flammable) limits	:	No data available.
Vapor pressure	:	No data available.
Vapor density	:	No data available.
Relative density	:	1.05
Solubility	:	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	:	No data available.
Auto-ignition temperature	:	No data available.
Decomposition temperature	:	
SADT	:	No data available.
Viscosity	:	No data available.

Section 10. Stability and reactivity

Reactivity	:	No specific data.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	No specific data.
Incompatible materials	:	Reactive or incompatible with the following materials: acids
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Acute toxicity

Information on toxicological effects

Product/ingredient name	Result	Species	Dose	Exposure
Sulphuric acid	LC50 Inhalation Vapor	Rat	310 mg/m3	4 hours
	LD50 Oral	Rat	438 mg/kg	-
	LC50 Inhalation Gas.	Rat	450 ppm	4 hours
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
	LD50 Intraperitoneal	Rat	525 mg/kg	-
	LD50 Intravenous	Mouse	71 mg/kg	-
	LD50 Oral	Mouse	3100 mg/kg	-
	LD50 Oral	Rat	3120 mg/kg	-
	LD50 Subcutaneous	Guinea pig	750 mg/kg	-
	LD50 Subcutaneous	Mouse	900 mg/kg	-
	LD50 Subcutaneous	Rat	2060 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sulphuric acid	Eyes - Severe irritant	Rabbit	-	24 hours 250 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Sensitization

No significant risk level

Mutagenicity

No significant risk level

Carcinogenicity

No significant risk level

Reproductive toxicity

No significant risk level

Teratogenicity

Section 11. Toxicological information

No significant risk level

Specific target organ toxicity (single exposure)

No specific data.

Specific target organ toxicity (repeated exposure)

No specific data.

Aspiration hazard

No specific data.

Information on the likely routes of exposure : Ingestion.

Potential acute health effects

Eye contact : Causes serious eye burns

Inhalation : No specific data.

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Skin contact : Causes severe drying out of skin and or burns .

Ingestion : Harmful if swallowed. May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No data available.

Potential delayed effects : No data available.

Long term exposure

Potential immediate effects : No data available.

Potential delayed effects :

Potential chronic health effects

No data available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

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Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	3831 mg/kg
Dermal	6414 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Sulphuric ACID	Acute EC50 29000 ug/L Fresh water	Algae - Chlorella pyrenoidosa - Exponential growth phase	96 hours
	Acute EC50 7.81 mg/L Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
	Acute EC50 5.88 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 112.4 mg/L	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 1.18 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute EC50 >1000 mg/L Fresh water	Daphnia - Daphnia magna - <24 hours	48 hours
	Acute LC50 800000 ug/L Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1250000 ug/L Marine water	Fish - Menidia beryllina - 40 to 100 mm	96 hours
		dubia - Neonate - <24 hours	
	Acute EC50 276.61 mg/L Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
	Acute EC50 40.38 mg/L Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
	Acute LC50 125000 ug/L Fresh water	Fish - Gambusia affinis - Adult	96 hours

Persistence and degradability

No specific data.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Sulphuric acid	0.25 -		LOW

Mobility in soil

Soil/water partition coefficient (K_{OC}) : No data available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	SANS 10228:2012	IMDG	IATA
UN number	UN1830	UN1830	Un1830
UN proper shipping name	CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.	Corrosive liquid, n.o.s.
Transport hazard class(es)	8 	8 	8 
Packing group	III	III	III
Environmental hazards			
Special precautions for user	No data available.	No data available.	No data available.
Additional information	-	**Emergency schedules (EmS)** F-A, S-B	**Passenger and Cargo Aircraft**Quantity limitation: 5 L Packaging instructions: 852 **Cargo Aircraft Only**Quantity limitation: 60 L Packaging instructions: 856 **Limited Quantities - Passenger Aircraft**Quantity limitation: 1 L Packaging instructions: Y841

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code :

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product : No known specific national and/or regional regulations applicable to this product

Section 16. Other information

Key to abbreviations : ADN/ADNR = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
UN = United Nations

References : Suppier Safety Data Sheet.
Toxnet.

Indicates information that has changed from previously issued version.

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