

# SAFETY DATA SHEET

(KROWN) ALUMA BRITE  
Product code: MR82  
Issued on: 17.02.2012  
REVISED: 16.12.2014 VERSION 1.1

## 1. MATERIAL / MIXTURE AND ORGANIZATION / COMPANY IDENTIFICATION

### 1.1. Product identification

KROWN MR82 ALUMA BRITE  
KROWN MR82 ALUMA BRITE CLEANER

### 1.2. The intended usages of the material or mixture and those not recommended

Aluminium polishing and cleaning agent

### 1.3. Information about the supplier of the safety data sheet

**Manufacturer:** Canadian Krown Dealers Inc.  
35 Magnum Drive, Schomberg, Ontario, LOG 1T0, Canada  
**Telephone:** +1 800-267-5744  
**E-mail:** info@krown.com  
**Website:** www.krown.com  
**Importer in the EU:** SIA KROWN EU  
Ganību dambis 25f, Riga, LV 1005, Latvia  
**Telephone:** +371 67491330  
**Fax:** +371 67491331  
**E-mail of the competent person:** info@krowneurope.com  
**Website:** www.krowneurope.com

### 1.4. Telephone for emergency situations

State fire and rescue service: 01, 112  
State police: 02, 110  
Emergency medical assistance service: 03, 113  
State Poison Centre Drug and Poison Information Centre: +371 67042473  
Manufacturer: +371 67491330

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the material/ mixture

**Classification in accordance with Regulation (EC) No. 1272/2008**

Skin Corr. 1A; Eye Irrit. 2; Skin Irrit. 2; H314. Acute Tox.4; H302, H332.

### 2.2. Label elements

**Labelling in accordance with Regulation (EC) No.1272/2008**

**Hazards pictographs:**



**Signal word:**

**Dangerous**

**Hazard statements:**

H302 Hazardous if swallowed.  
H314 Causes severe skin burns and eye damage.

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H332 Harmful if inhaled.

## Precautionary statements:

### Prevention

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breath fumes / spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink and smoke when using the product.  
P280 Use protective gloves/ protective clothing/ eye protection/ face protection

### Response

P301+P330 IF SWALLOWED, rinse mouth. DO NOT INDUCE  
+P331 vomiting.  
P302+P352 IF ON SKIN, wash with large amount of water/soap.  
P303+P361 IF ON SKIN (or hair): immediately remove contaminated clothing.  
+P353 Rinse with water/ shower.  
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for  
breathing.  
P305+P351 IF IN EYES: rinse cautiously with water for several minutes. Remove  
+P338 contact lenses, if present and safe to do. Continue rinsing.  
P310 Immediately contact POISON CENTER/ doctor.  
P321 Special treatment (see instructions on this label).  
P330 Rinse mouth.  
P363 Wash contaminated clothing before reuse.  
P361 + P364 Immediately remove all contaminated clothing and wash before reuse.

### Storage

P405 Store locked up.

### Disposal

P501 Dispose of contents/ container in accordance with the local regulations.

**Contents:** sulphuric acid ...%; ...% hydrofluoric acid; 2-butoxyethanol

## 2.3. Other hazards

The mixture does not correspond to *PBT* or *vPvB* criteria.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Composition

Not applicable.

### 3.2. Mixtures

Names of components	CAS No.	EINECS No.	RERACH registration No.	Concentration, % of weight	Classification
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Sulphuric acid ...%	7664-93-9	231-639-5	01-2119969649-13-0000	10-30%	C ≥ 15%: Skin Corr. 1A; H314; Note B ----- C;R35 Note B
...% hydrofluoric acid	7664-39-3	231-634-8	01-2119458860-33-0000 ÷ 01-2119458860-33-0017	5-15%	C ≥ 7%: Skin Corr. 1A; H314; Note B ----- C;R35 Note B
2-butoxyethanol	111-76-2	203-905-0	01-2119475108-36-0000 ÷ 01-2119475108-36-0012	5-15%	Xn; R20/21/22 Xi; R36/38 ----- Acute Tox. 4; H332, H312, H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315

**Additional information:**

Please see full R phrases and H statements in Section 16.

<b>4. FIRST AID MEASURES</b>
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**4.1. Description of first aid measures**

**Inhalation**

Move person in fresh air. Immediately seek competent medical attention. If the breathing has stopped, immediately perform CPR. If the person has difficulty breathing, qualified personnel must perform respiration with oxygen until person is able to breath on their own. Do not give stimulants, unless prescribed by doctor. The doctor must check on the patient and observe for at least 24h.

**Eye contact**

Rinse with large amount of water for at least 15 minutes. Before rinsing make sure there are no contact lenses in the eyes. Keep the eyelids open during rinsing. Immediately seek medical attention.

**Skin contact**

Wash contact area thoroughly with water and soap with special attention to skin under nails. Immediately seek medical attention. If it must be postponed, use magnesium paste (magnesium oxide / glycerine) or a treatment containing magnesium hydroxide. Alternatively, 0.13% Zaphirin chloride (benzalkonium chloride) solution may be applied for 30 to 60 minutes or, if unavailable, wash with 3% ammonia solution. Immediately remove the contaminated clothing and wash before reuse.

**Ingestion**

Drink large amount of water or milk. DO NOT INDUCE VOMITING. Do not give anything orally to an unconscious person. Immediately seek medical attention. It is possible to give couple of glasses of milk or treatment containing magnesium hydroxide for calming effect.

**Personal protective equipment of first aid provider**

No other relevant information available.

**4.2. Most important symptoms and effects, both acute and delayed**

**When in eyes**

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Caustic – strong irritation. Vapours, liquid and mist have caustic effect on eyes. May cause temporary or permanent blindness, if not treated immediately. May cause severe burns, which may not be immediately painful or visible.

### When on skin

Caustic – strong irritation. Contains hydrofluoric acid. Vapours, liquid and mist are extremely caustic. May cause skin ulcers and possible fluoride absorption, if not treated immediately. May cause severe burns, which may not be immediately painful or visible. Hydrofluoric acid may be absorbed through skin and affect

subcutaneous tissue and bones.

### When swallowed

Caustic – strong irritation. May cause severe mouth, throat and stomach burns. May affect kidney function and even cause death, if swallowed. Causes gastritis and digestive tract ulcers and scarring. If not immediately treated, may cause deep and possibly lethal hypocalcaemia.

### If inhaled

Mild exposure may irritate throat and respiratory system. Severe exposure may cause nose and throat burns, lung infections and pulmonary edema, as well as calcium depletion in organism, if not treated immediately.

### Effects of chronic exposure

A) Excessive exposure to hydrofluoric acid in humans may cause bone and joint developments (fluorosis). Large hydrofluoric acid burns (exceeding 25 square inches = 160cm<sup>2</sup>) have been lethal in rare cases.

B) Excessive exposure to glycoether (in pure form) may cause anaemia, liver pathologies, kidney damage and blood pathologies in laboratory animals.

### Initial access route

[x] – Inhalation [ ] - Swallowing [x] – Through skin

### Other toxic effects

Not specified.

### 4.3. Indication of any immediate medical attention and special treatment needed

Medical conditions that may be aggravated by exposure: exposure to the mixture may aggravate pre-existing skin, eye and respiratory conditions.

SPECIAL INSTRUCTIONS CONCERNING FLUORINE DERIVATIVES: If calcium gluconate gel is available, rub it on damaged skin. Keep massaging until pain retreats. DO NOT APPLY this method for treating eyes. If swallowed, give milk or swallow calcium gluconate.

## 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

Not-flammable

### Suitable extinguishing media

For fire extinguishing next to acid container generally foam, water, dry chemicals or carbon dioxide is used.

### Non-suitable extinguishing media

No instructions.

### 5.2. Special hazards arising from the substance or mixture

EXPLOSION HAZARD: Acids react to majority of metals, releasing hydrogen gas, which may form explosive mixtures with air.

### 5.3. Advice for fire fighters

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**SPECIAL PROCEDURES IN CASE OF FIRE:** All unprotected personnel must leave the fire risk area. Do not enter the fenced fire area without full protective equipment (helmet with face guard, coveralls, gloves and rubber boots), including respirators with autonomous air supply working in pressure regime. Cool the containers endangered by fire by spraying with water. Do not use powerful water stream near broken containers or acid leaks. Beware of acid splashing.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions, protective equipment and emergency procedures

Emergency personnel in the contaminated areas must use suitable personal protective equipment and certified respirators with autonomous air supply. Use protective goggles and impervious gloves.

#### 6.2. Environmental precautions

Prevent further leaks or spills, if can be done safely. Immediately inform the responsible environmental services about the accident. Prevent release into environment. Inform the responsible state institutions, if the spillage is significant and may have an adverse effect on environment.

#### 6.3. Methods and material for containment and cleaning up

**COLLECTION OF LEAKED MATERIAL: DO NOT TOUCH THE LEAKED MATERIAL!** Use full protective equipment. Collect the leak and cautiously dilute with large amount of water. Cautiously neutralise with alkali-containing substances, for example, sodium carbonate or lime. Ensure good ventilation. Rinse the residue in accordance with the local regulations. Prevent the product leaking into drains without neutralization. Limit access in the are until cleanup is finished. All persons involved in the cleanup must wear suitable personal protective equipment. Collect material for disposal.

#### 6.4. Reference to other sections

For waste disposal see Section 13, personal protective equipment indicated in Section 8.

### 7. HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

##### Precautionary information

When handling combustible or flammable materials, ground all equipment and use only non-sparking tools.

##### Other precautionary procedures

- A) Even emptied containers may contain product residue and vapours. Always comply the hazard statements.
- B) Caustic – handle with care.
- C) Do not drop – containers may explode.

Special procedures and equipment for use

Do not breathe mist or aerosols. Prevent skin and eye contact. Not for internal consumption. Do not use glass equipment. Do not store in glass containers.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep in cool, dry place in sealed containers between 35 °F (1,66 °C) and 120 °F (48,9 °C). Prevent freezing. Do not store in glass containers – the glass will dissolve, including tempered glass. Do not store with alkalis or alkaline or chlorine-containing (bleaches) materials.

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### 7.3. Specific end use(s)

Polishing and cleaning agent for aluminium.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### 8.1.1. Exposure limit values

Latvia: exposure limit values

Name of the component	8h OEL mg/m <sup>3</sup>	8h OEL ppm	15min OEL mg/m <sup>3</sup>	15min OEL ppm	Notes
Sulphuric acid (mist defined as thoracic fraction)	0.05				
Hydrogen fluoride	1.8	1.5	3	2.5	
2-butoxyethanol	98	20	246	50	Skin

*OEL – occupational exposure limit values in accordance to Annex 1, Cabinet of Ministers' Regulations No. 325 of 15.05.2007*

Note "Skin" at the exposure limit value indicated that the substance is absorbed through skin.

EU: exposure limit values

Name of the component	8h OEL mg/m <sup>3</sup>	8h OEL ppm	15min OEL mg/m <sup>3</sup>	15min OEL ppm	Notes
Sulphuric acid (mist defined as thoracic fraction)	0.05				
Hydrogen fluoride	1.5	1.8	2.5	3	
2-butoxyethanol	98	20	246	50	Skin

### 8.1.2. Derived No Effect Levels (DNEL) and Prescribed No Effect Concentration (PNEC)

#### Sulphuric acid, CAS No. 7664-93-9

#### Derived No Effect Levels (DNEL)

Name of the component	Type	Type of exposure	Value	External type
Sulphuric acid (CAS No. 7664-93-9)	Contractors	Inhalation	0.1 mg/m <sup>3</sup>	Acute exposure, local
Sulphuric acid (CAS No. 7664-93-9)	Contractors	Inhalation	0.05mg/m <sup>3</sup>	Chronic exposure, local

#### Hydrogen fluoride, CAS No. 7664-39-3

#### DNEL

Type of exposure	Contractors			
	Acute exposure, local	Acute exposure, systemic	Chronic exposure, local	Chronic exposure, systemic
Inhalation	2.5 mg/m <sup>3</sup>	1.5 mg/m <sup>3</sup>	1.5 mg/m <sup>3</sup>	2.5 mg/m <sup>3</sup>

#### Hydrogen fluoride, CAS No. 7664-39-3

#### DNEL

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Type of exposure	End-users			
	Acute exposure, local	Acute exposure, systemic	Chronic exposure, local	Chronic exposure, systemic
Inhalation	1.2 mg/m <sup>3</sup>	0.03 mg/m <sup>3</sup>	0.2 mg/m <sup>3</sup>	0.03 mg/m <sup>3</sup>
Per oral	Hazards have been identified, but no DNEL value is available.	0.01 mg/kg	Hazards have been identified, but no DNEL value is available.	0.01 mg/m <sup>3</sup>

### 2-butoxyethanol, CAS No. 111-76-2

#### DNEL

Type of exposure	Contractors			
	Acute exposure, local	Acute exposure, systemic	Chronic exposure, local	Chronic exposure, systemic
Inhalation	246 mg/m <sup>3</sup>	663 mg/m <sup>3</sup>	Hazards have been identified, but no DNEL value is available.	98 mg/m <sup>3</sup>
Dermal	89mg/kg	Hazards have been identified, but no DNEL value is available.	75mg/kg	Hazards have been identified, but no DNEL value is available.

### 2-butoxyethanol, CAS No. 111-76-2

#### DNEL

Type of exposure	End-users			
	Acute exposure, local	Acute exposure, systemic	Chronic exposure, local	Chronic exposure, systemic
Per oral	13.4 mg/kg	Hazards have been identified, but no DNEL value is available.	3.2 mg/kg	Hazards have been identified, but no DNEL value is available.
Inhalation	246 mg/m <sup>3</sup>	Hazards have been identified, but no DNEL value is available.	123 mg/m <sup>3</sup>	49 mg/m <sup>3</sup>
Dermal	44.5 mg/kg	Hazards have been identified, but no DNEL value is available.	38 mg/kg	Hazards have been identified, but no DNEL value is available.

### Prescribed No Effect Concentration (PNEC)

#### Sulphuric acid, CAS No. 7664-93-9

##### PNEC

Environmental objective	PNEC value
Freshwater	0.0025 mg/l
Freshwater sediments	0.002 mg/kg
Seawater	0.00025 mg/l
Seawater sediments	0.002mg/kg
Food chain	Hazards have been identified, but no PNEC are available
Micro-organisms in sewage treatment systems	8.8 mg/l
Soil (farming)	Hazards have been identified, but no PNEC are available
Air	Hazards have been identified, but no PNEC are available

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<b>Hydrogen fluoride, CAS No. 7664-39-3</b>	
<b>PNEC</b>	
Environmental objective	PNEC value
Freshwater	0.9 mg/l
Freshwater sediments	0.766 mg/kg
Seawater	0.9 mg/l
Seawater sediments	Hazards have been identified, but no PNEC are available
Food chain	Hazards have been identified, but no PNEC are available
Micro-organisms in sewage treatment systems	51 mg/l
Soil (farming)	11 mg/l
Air	Hazards have been identified, but no PNEC are available

<b>2-butoxyethanol, CAS No. 111-76-2</b>	
<b>PNEC</b>	
Environmental objective	PNEC value
Freshwater	8.8 mg/l
Freshwater sediments	8.14 mg/kg
Seawater	0.88 mg/l
Seawater sediments	Hazards have been identified, but no PNEC are available
Food chain	Hazards have been identified, but no PNEC are available
Micro-organisms in sewage treatment systems	463 mg/l
Soil (farming)	2.8 mg/kg
Air	Hazards have been identified, but no PNEC are available

Additional occupational exposure limits, that may cause possible harm during processing:

<b>2-butoxyethanol, CAS No. 111-76-2</b>
NOAEL 100 mg/l (daphnia) (21 d., Daphnia magna; OECD 211)
> 100 mg/l (fish) (21 d., Brachydanio rerio)

### 8.2. Exposure controls

#### 8.2.1. Adequate technical management

**General instructions:** Preventive measures – minimize exposure to the effects of liquids, vapours, mist or fumes. In case of emergency, see Section 6.

**Technical measures:** Explosion-protected local ventilation. Use local exhaust ventilation to keep workplace concentrations below OEL.

#### 8.2.2. Such individual protection measures as personal protective equipment

The selection of personal protective equipment may differ based on the circumstances of use.

**Eye/face protection:** Use plastic face protection and protective goggles with side guards against splashing chemical substances (EN 166). **Important: do not use contact lenses!**

**Hand protection:** Use protective gloves (EN374). Acid resistant gloves, for example, neoprene or plasticised polyvinyl chloride with elongated wrist section.

**Body protection:** Use impervious clothing and boots to prevent repeated and prolonged skin contact with the product (EN ISO 20345).

In case of leaks or other emergencies, wear full protective clothing, for example, rubber boots with neoprene sole and coverall for protection from acids.

**Protective footwear:** rubber boots with neoprene sole.



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**Respiratory protection:** In case of insufficient ventilation or if there is a danger of inhalation of vapour, use suitable respiratory protection with a gas filter E (LVS EN 141, identification colour – yellow). In enclosed spaces use respirator with autonomous air supply.

**Thermal hazards:** Not applicable.

**Mechanic impact:** No sensitivity to mechanical impact expected.

**Static discharge:** Not applicable.

**Other procedures:** Eye rinsing equipment and emergency shower must be readily available. Ensure correct disposal of such objects as rags and waste materials contaminated with the product. Ensure suitable ventilation.

**Hygienic measures:** Always comply with the personal hygiene measures. Wash after handling the material, before eating, drinking and/ or smoking. Immediately remove contaminated work clothing and regularly wash before reuse. Clean personal protective equipment to remove contamination. Private clothing and work clothing must be kept separately.

### 8.2.3. Environmental risk management

Information not available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

a) appearance	Clear liquid
b) odour	Data not available
c) odour threshold	Data not available
d) pH	<1
e) melting / freezing point	-0 °C
f) boiling temperature and boiling temperature range	100 °C
g) flash temperature	Non-flammable
i) flammability (for solids, gasses)	Not applicable
j) upper/ lower flammability or explosive limit	Not applicable
h) evaporation rate (water=1)	Data not available
k) vapour pressure (mm Hg)	<2
l) vapour density (air=1)	<2
m) relative density	1.145
n) solubility in water	Outstanding
o) partition coefficient: n-octanol/water	Data not available
p) ignition temperature	Not applicable
q) degradation temperature	Data not available
r) viscosity	Data not available
s) explosion hazard	Data not available
t) oxidation properties	Data not available

### 9.2. Other information

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

Mixture is not considered to be an agent of hazardous reaction in normal circumstances of use, complying with the safety measures described in the safety data sheet.

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May react to alkalis, producing heat. Reacts with powerful reducing agents.

### 10.2. Chemical stability

Stable at normal temperature.

### 10.3. Possibility of hazardous reactions

Reacts to alkaline, oxidising and/or chlorine containing materials, most metals. Contact produces heat and / or toxic gases. Dissolving concentrated sulphuric acid in water, large amount of heat is produced.

Dangerous polymerization

Polymerization does not take place.

### 10.4. Conditions to avoid

Prevent extensive heat for prolonged periods. Water, moisture.

### 10.5. Incompatible materials

Glass, concrete and other silicone-containing materials, carbonates, sulphides, cyanides, alkalis, some oxides, fluorine, chlorine and chlorinated compounds (including household bleaches), most metals.

### 10.6. Hazardous decomposition products

Hydrogen, sulphur dioxide, sulphur trioxide, hydrogen fluoride.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological information

No data available regarding the toxicity of the mixture. The evaluation of toxicological effects is based on the basic data about the component toxicity.

#### a) acute toxicity

May cause severe skin, mucosa and eye burns and damage. Harmful if inhaled and swallowed.

#### Component toxicity

##### Sulphuric acid, CAS No. 7664-93-9

#### Acute toxicity

LD50 – 2140 mg/kg (rat, ingestion)

LC50 – 375 mg/m<sup>3</sup>/4h (rat, inhalation)

##### Hydrogen fluoride, CAS No. 7664-93-9

#### Acute toxicity

LD50 – 1276 ppm/1h (rat, inhalation)

LC50 – 850 mg/m<sup>3</sup> (rat, inhalation)

##### 2-butoxyethanol, CAS No. 111-76-2

#### Acute toxicity

LD50 – 470 mg/kg (rat, ingestion)

LD50 – 220 mg/kg (rabbit, through skin)

LC50 – 2 mg/l/4h (rat, inhalation)

#### b) caustic irritation

Strong caustic effect on skin and mucosa. Causes poorly healing wounds. May be absorbed through skin.

Dangerous in contact with skin!

#### c) serious eye damage/ irritation

Vapours, liquid and mist have caustic effect on eyes. May cause temporary or permanent blindness.

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### **d) respiratory or skin sensitization**

No data available regarding the sensitizing effects of the mixture or components.

### **e) germ cell mutagenicity**

No data available regarding mutagenic effect of the mixture or components.

### **f) carcinogenicity**

No data available regarding carcinogenic effect of the mixture or components.

### **g) reproductive toxicity**

**Sulphuric acid, CAS No. 7664-93-9** NOEC 19.3 mg/m<sup>3</sup> (mouse, inhalation)

### **h) Specific target organ toxicity, single exposure**

Mixture may be hazardous, if inhaled, swallowed or on skin.

### **i) specific target organ toxicity, repeated exposure**

Repeated exposure to fluorine-containing material in high concentrations may increase bone density causing osteosclerosis.

### **j) hazards caused by inhalation**

Not classified as aspiration hazard.

### **Other hazards**

Existence of other hazards may not be ruled out.

## **12. ECOLOGICAL INFORMATION**

The components of the mixture are not classified as dangerous to the environment. However, it does not exclude the possibility that large or frequent leaks may be dangerous or have adverse effect on the environment. The product may affect water acidity (pH level) and have adverse effect on aquatic organisms.

### **12.1. Toxicity**

#### **Component toxicity**

**Sulphuric acid, CAS No. 7664-93-9**

#### **Acute toxicity**

##### **Fish**

LC50 (96h) 42 mg/L - *Gambusia affinis*

##### **Aquatic invertebrates**

LC50 (48 h) 42,5 mg/L *Crustacea - Pandalus montagui*

**Hydrofluoric acid, CAS No. 7664-93-9**

#### **Acute toxicity**

##### **Fish**

LC50 (48 h) 299 mg/L, *Leuciscus idus melanotus*

LC50 (96 h) 51 mg/L, *Oncorhynchus mykiss*

LC50 (96 h) 165 mg/L, *Salmo trutta*

LC50 (96 h) 340 mg/L, *Gasterosteus aculeatus*

**2-butoxyethanol, CAS No. 111-76-2**

#### **Acute toxicity**

##### **Fish**

LC50 (96 h) 1341 ppm, *Lepomis macrochirus* (bluegill)

##### **Aquatic invertebrates**

EC50 (24 h) 1720 mg/l, *Daphnia magna* (daphnia)

### **12.2. Persistence and degradability**

Persistence

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Water-soluble. Based on the available information persistence is unlikely.

Degradability

Not applicable inorganic substances.

### 12.3. Bioaccumulative potential

Bioaccumulative potential

Product does not contain substances that are considered bioaccumulative

Decomposition coefficient

Not available.

### 12.4. Mobility in soil

Mixture is water soluble and absorbed in soil.

### 12.5. Results of PBT and vPvB assessment

No data available on the results of PBT and vPvB assessment.

### 12.6. Other adverse effects

Data not available.

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Comply with the regulatory documents of the EU and the Republic of Latvia regulating the waste handling, disposing of this product, solvents and other byproducts, comply with the environmental requirements, waste disposal legislation and the regulations of local municipalities.

#### Product residue and wastes

Do not store with municipal waste. Transfer waste for disposal or recycling to a licensed waste treatment company.

#### **Waste code**

060199 Other wastes from technological processes of acid production, preparation, delivery and use

#### Container and packaging waste

When possible, recycle containers and packaging free from product residue. Only completely emptied containers may be recycled.

#### **Waste codes**

If the container is free from product residue

150102 Plastic packaging

If the container contains product residue

150110 Packaging containing hazardous residue or contamination

#### **Additional information for waste treatment company personnel**

It is advised to comply with the general protective and hygiene measures when working with chemical substances.

Prevent spilling and rinsing of the spilled material, as well as contact with soil, water bodies, kennels and drains.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

Land transportation UN No. 2922

Marine transportation UN No. 2922

Air transportation UN No. 2922

### 14.2. UN proper shipping name

CORROSIVE LIQUID, TOXIC, N.O.S. (SULPHURIC ACID, HYDROFLUORIC ACID)

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### 14.3. Transport hazard class(-es)

ADR	Class 8: Caustic substances
ADR/RID/ADN additional risk	6.1
ADR label	8 & 6.1
IMDG class	8
IMDG additional risk	6.1
ICAO class/division	8
Air	6.1
Hazard label	



### 14.4. Packaging group

ADR/RID/ADN packaging group	II
IMDG packaging group	II
ICAO/IATA packaging group	II

### 14.5. Environmental hazards

Marine pollutant	No
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### 14.6. Special precautions for user

Segregation group	1. Acids
EMS	F-A, S-B
Emergency code	2X
Limitation codes for tunnels	(E)

Before handling the product, become acquainted with the safety instructions, SDS and descriptions of emergency procedures.

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## 15. REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No. 1907/2006 (18 December, 2006) of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

Regulation (EC) No. 1272/2008 (16 December, 2008) of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Commission Regulation (EU) No 453/2010 (20 May 2010) amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

## SAFETY DATA SHEET

(KROWN) **ALUMA BRITE**  
Product code: MR82  
Issued on: 17.02.2012  
REVISED: 16.12.2014 VERSION 1.1

Procedures for Classification, Labelling and Packaging of Chemical Substances and Chemical Products  
(Regulations of the Cabinet of Ministers' of the Republic of Latvia No. 107 of 12.03.2002)  
Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces  
(Regulations of the Cabinet of Ministers' of the Republic of Latvia No. 325 of 15.05.2007)

### 15.2. Chemical risk assessment

No data on chemical risk assessment

## 16. OTHER INFORMATION

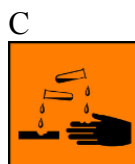
Developed on: 17.02.2012  
Developed by: J. Brideau (800) 267-5744  
Reviewed: on 16 December, 2014, SIA "Retorte"  
Reviewed Sections 1-15 in correspondence with the current legislation of the EU.

### Information sources

Information has been reviewed and supplemented, based on the safety data sheet developed by the manufacturer and existing legislation.

**Classification in accordance with Regulation of the Council 67/548/EEC and Directive 1999/45/EC**  
C; R35

**Labelling in accordance with 1999/45/EC**  
**Hazard labels**



Caustic

### Risk phrases

R35 Causes severe burns.  
R20/22 Harmful if inhaled and swallowed.

### Safety phrases

S2 Keep away from children.  
S23 Do not breathe vapours or aerosols.  
S24/25 Prevent contact with skin and eyes.  
S26 If in eyes, immediately rinse with large amount of water and seek medical attention.  
S27/28 If on skin, immediately remove contaminated clothing and rinse with large amount of water.  
S36/37/39 Wear suitable protective clothing, protective gloves and eye or face protection.  
S45 In case of accident or feel unwell immediately seek medical advice (show the label where possible)  
S51 Use only in well-ventilated area.

Contents: sulphuric acid ...%; ...% hydrofluoric acid; 2-butoxyethanol

## SAFETY DATA SHEET

(KROWN) **ALUMA BRITE**  
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### Section 2 and 3 chemical material effect descriptions (R phrases) and hazard labels (H label) in full:

R35 Causes severe burns.  
R20/21/22 Harmful if inhaled, in contact with skin and if swallowed.  
R36/38 Irritates eyes and skin.

Skin Corr. 1A Caustic to skin, Hazard Category 1A  
H314 Causes severe skin burns and eye damage.  
Acute Tox. 4 Acute toxicity, Hazard Category 4  
H332 Harmful if inhaled.  
H312 Harmful if in contact with skin.  
H302 Harmful if swallowed.  
Eye Irrit. 2 Eye irritation, Hazard Category 2  
H319 Causes severe eye irritation.  
Skin Irrit. 2 Skin irritation, Hazard Category 2  
H315 Irritates skin.

### Abbreviations and acronyms used in the safety data sheet:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EINECS: European Inventory of Existing Commercial Chemical Substances

OEL: Occupational exposure limit

STEL: Short term exposure limit

TWA: time-weighted average

### Disclaimer

The information in this safety data sheet is based on the data provided by the product manufacturer, which is to be deemed correct; however, the product importer, nor its manufacturer shall guarantee that this information is comprehensive, nor shall bare any responsibility of the consequences caused by the use of this information. It is the responsibility of the user of the product, to evaluate the information provided here and its applicability to the current circumstances of the product usage, as well as to carry out all necessary safety procedures, when using this product.

**End of safety data sheet**