



## SAFETY DATA SHEET

### ALUPREM - aluminum monohydrate - powder

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1. Product identifier

Product name ALUPREM - aluminum monohydrate - powder  
Synonyms, Trade Names TB and SR-100 products  
REACH Registration number 01-2119555298-28-0014  
REACH Registration notes mono-constituent substance

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses catalytic application  
Flame retardant  
surface modifier  
Uses advised against Any use other than those identified.

##### 1.3. Details of the supplier of the safety data sheet

Supplier TP&T BV  
Burgemeester Moslaan 13  
8051 CP Hattem  
The Netherlands  
Tel: +31-38-33 88 657  
Fax: +31-38-444-62-07  
info.tpt@torminerals.com

##### 1.4. Emergency telephone number

TP & T BV (Tor Minerals International Inc.): +31-38-33 88 657 / 0031(0)611060679

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.

Classification (67/548/EEC) Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health

Dust may irritate the eyes and the respiratory system.

Environment

The product is not expected to be hazardous to the environment.

##### 2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

No pictogram required.

Precautionary Statements

P261

Avoid breathing dust.

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P280	Wear eye protection.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313	If eye irritation persists: Get medical advice/attention.
P401	Store in accordance with local regulations.
P501	Dispose of contents/container in accordance with local regulations.
Supplementary Precautionary Statements	
P264	Wash contaminated skin thoroughly after handling.

## 2.3. Other hazards

This product does not contain any PBT or vPvB substances.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Boehmite			>98%
CAS-No.: 1318-23-6	EC No.: 215-284-3	Registration Number: 01-2119555298-28-0014	
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

REACH Registration number 01-2119555298-28-0014

REACH Registration notes mono-constituent substance

Composition Comments

No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

General information

Remove victim immediately from source of exposure. Provide rest, warmth and fresh air.

Inhalation

If unconscious place patient on their side in the recovery position and ensure they are breathing. Clean nose and mouth with water.

Artificial respiration may be administered by suitably qualified first-aiders.

Get medical attention if symptoms persist.

Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Drink 1-2 glasses of water to dilute swallowed material and seek immediate medical attention.

Skin contact

Remove contaminated clothing and shoes. Wash skin thoroughly with soap and running water. Take especial care to clean folds, crevices, creases and groin.

Get medical attention if irritation persists or develops.

Launder clothing and clean shoes thoroughly before reuse.

Eye contact

Check for contact lenses which must be removed from the eyes before rinsing.

Promptly rinse eyes with plenty of clean water while lifting the eyelids.

Continue to rinse for at least 15 minutes. Continue until the eyes are free of all traces of contamination.

Get medical attention if any discomfort or irritation persists.

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

General information

If adverse symptoms develop as described the casualty should be transferred to hospital as soon as possible.

Inhalation

Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Ingestion

May cause discomfort if swallowed.

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Skin contact

Prolonged skin contact may cause redness and irritation.

Eye contact

May cause temporary eye irritation.

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

Treat Symptomatically. Give supportive therapy if indicated.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

Extinguishing media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

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

Hazardous combustion products

No hazardous decomposition products.

Unusual Fire & Explosion Hazards

None known.

### 5.3. Advice for firefighters

Protective equipment for fire-fighters

Wear self-contained breathing apparatus and full protective clothing. Keep all unnecessary people away. Fire water run-off must not be allowed to contaminate ground or enter drains, sewers or water courses. Provide bunding against fire water run-off.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Do not breathe dust. Keep unnecessary people at a safe distance.

### 6.2. Environmental precautions

Do not discharge onto the ground or into water courses. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container.

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

Avoid generation and spreading of dust. Sweep up and place into clearly labelled containers for recovery or disposal (see section 13). Cover and move the containers. Flush the area with water. Flushings must not be allowed to contaminate ground or enter drains, sewers or water courses. Provide bunding against water run-off. Clean up personnel should wash contaminated skin thoroughly after dealing with spillage.

### 6.4. Reference to other sections

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Eye wash facilities and emergency shower must be available when handling this product. Use only with adequate ventilation. Do not breathe dust. Avoid spilling, skin and eye contact.

Avoid handling which leads to dust formation. Dust may form explosive mixtures with air. Keep away from heat, sparks or flame. Containers and equipment must be bonded to avoid static discharge. Use only electrical equipment suitable for explosive atmospheres. Avoid spilling, skin and eye contact. Wash thoroughly after handling. Keep away from heat, sparks and open flame.

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

Store in tightly closed original container in a dry and cool place.

### 7.3. Specific end use(s)

For industrial use only.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Ingredient Comments

No exposure limits noted for ingredient(s).

#### Boehmite (CAS: 1318-23-6)

DNEL				
Industry	Inhalation.	Long Term	3.59	mg/m3
Consumer	Oral	Long Term	Systemic Effects	2.37 mg/kg/day

### 8.2. Exposure controls

#### Process conditions

Provide eyewash station.

#### Engineering measures

Provide adequate general and local exhaust ventilation.

#### Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided.

#### Hand protection

Wear suitable protective gloves conforming to EN 374. Seek recommendations from manufacturer or supplier. After using gloves the hands should be washed and thoroughly dried and a suitable moisturiser applied.

#### Eye protection

Wear approved safety goggles.

#### Other Protection

Provide eyewash station and safety shower.

#### Hygiene measures

Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Powder.
Colour	White.
Odour	Odourless.
Solubility	Insoluble in water
Initial boiling point and boiling range (°C)	2920 - 3040°C
Melting point (°C)	2040°C with decomposition
Relative density	3.0 @ 20°C
Bulk Density	400 - 450 kg/m3
pH-Value, Diluted Solution	7 - 9 @ 10% As an aqueous slurry.
Partition Coefficient (N-Octanol/Water)	
Not relevant	

### 9.2. Other information

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal conditions of storage and use. See section 7.

#### Known dangerous reactions

Avoid unintended contact with strong acids.

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## 10.3. Possibility of hazardous reactions

Not determined.  
Hazardous Polymerisation  
Not relevant

## 10.4. Conditions to avoid

None known.

## 10.5. Incompatible materials

Materials To Avoid  
None known.

## 10.6. Hazardous decomposition products

Not known.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity:

Acute Toxicity (Oral LD50)  
> 2000 mg/kg Rat  
REACH dossier information  
Acute Toxicity (Dermal LD50)  
Scientifically unjustified.  
REACH dossier information

Acute Toxicity (Inhalation LC50)  
> 2.3 mg/l (dust/mist) Rat 4 hours  
REACH dossier information

#### Respiratory or skin sensitisation:

Respiratory sensitisation  
Mouse  
Not sensitising.  
Skin sensitisation  
Guinea pig maximization test (GPMT):  
REACH dossier information  
Not Sensitising.

#### Germ cell mutagenicity:

Genotoxicity - In Vitro  
Chromosome aberration:  
Ambiguous  
Genotoxicity - In Vivo  
Scientifically unjustified.  
Ignored due to low Klimisch scoring of the test methodology.

#### Carcinogenicity:

Carcinogenicity  
LOAEL 100 mg/m<sup>3</sup> Inhalation. Hamster

#### Reproductive Toxicity:

Reproductive Toxicity - Fertility  
Scientifically unjustified.  
Does not contain any substances known to be toxic to reproduction.

#### Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure  
NOAEL 3225 mg/kg Oral Rat

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## Target Organs

Central nervous system

Not classified as a specific target organ toxicant after repeated exposure.

## Inhalation

High concentrations of dust may irritate throat and respiratory system and cause coughing. Pre-existing respiratory conditions may be aggravated by exposure to dust.

## Ingestion

May cause discomfort if swallowed.

## Skin contact

Skin irritation is not anticipated when used normally. Not a skin sensitiser.

## Eye contact

Can cause mechanical irritation to eyes.

## Route of entry

Inhalation.

Target Organs

Respiratory system, lungs

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

### 12.1. Toxicity

#### Acute Fish Toxicity

Not toxic at limit of water solubility.

#### Acute Toxicity - Fish

NOEC 60 days 169 µg/l *Salvelinus fontinalis* ((American) brook trout)

#### Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 100 mg/l *Daphnia magna*

#### Acute Toxicity - Aquatic Plants

EC50 72 hours > 100 mg/l *Scenedesmus subspicatus*

### 12.2. Persistence and degradability

Not relevant for metallic salts.

### 12.3. Bioaccumulative potential

#### Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

#### Partition coefficient

Not relevant

### 12.4. Mobility in soil

#### Mobility:

The product is insoluble in water and will sediment in water systems.

### 12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

### 12.6. Other adverse effects

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

# ALUPREM - aluminum monohydrate - powder

## General information

Product is hazardous waste. Do not allow into drains, sewers or water courses.

Disposal must be by means of a licensed waste contractor.

### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

## SECTION 14: TRANSPORT INFORMATION

General The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

Not applicable.

Transport Labels

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

### 14.6. Special precautions for user

Not applicable.

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

Not applicable.

## SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 SI No 716. (CHIP4).

Control of Substances Hazardous to Health Regulations (as amended). (COSHH)

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007. (CDG 2009)

Management of Health & Safety at Work Regulations 1999.

Approved Code Of Practice

The Control of Substances Hazardous to Health Regulations 2002 (as amended). Approved code of practice and guidance.

Fifth Edition 2005. HSE Books, or download at: <http://www.hse.gov.uk/pubns/priced/l5.pdf>

Guidance Notes

Introduction to Local Exhaust Ventilation HS(G)37.

Dust: General principles of protection (revised) EH44 1997.

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 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, including amendments.

## ALUPREM - aluminum monohydrate - powder

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 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 with amendments.

ADR (L'Accord européen relative au transport international des marchandises dangereuses par route.)

National Regulations

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007 (CDG 2007).

### 15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out.

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#### SECTION 16: OTHER INFORMATION

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Information Sources

REACH Registration Dossier.

Revision Comments

Comprehensive revision.

And translated into the language of this document as of the date below.

Revision Date 03-OCT-13

Revision 04

Supersedes date 02-MAY-13

Risk Phrases In Full

NC Not classified.

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