



## SAFETY DATA SHEET ALUPREM - aluminum trihydrate

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

#### 1.1. Product identifier

Product name	ALUPREM - aluminum trihydrate
Synonyms, Trade Names	All grades of TA, TAB, TAG, TG, TH, THB, THG, TLV, TS, TWT, XL with and without CES, LV, DES, MES, S, SES, SOC, VS modification
REACH Registration number	01-2119529246-39-XXXX
REACH Registration notes	mono-constituent substance
CAS-No.	21645-51-2
EC No.	244-492-7

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

Identified uses	Pigment. Filler for paint and plastics. Flame retardant Smoke suppressant in polymers.
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

Not a health hazard under normal conditions of use and as delivered. High dust concentrations may cause mechanical irritation of the eyes, skin and respiratory tract.

##### Environment

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

##### Physical and Chemical Hazards

Releases humidity upon decomposition, do not heat in closed containers.

#### 2.2. Label elements

# ALUPREM - aluminum trihydrate

EC No. 244-492-7  
Label In Accordance With (EC) No. 1272/2008  
No pictogram required.

## Precautionary Statements

P261	Avoid breathing dust.
P285	In case of inadequate ventilation wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P402	Store in a dry place.
P501	Dispose of contents/container in accordance with local regulations.

## 2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

aluminium hydroxide			>95%
CAS-No.: 21645-51-2	EC No.: 244-492-7	Registration Number: 01-2119529246-XXXX	
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 01-2119529246-39-XXXX  
REACH Registration notes mono-constituent substance  
CAS-No. 21645-51-2  
EC No. 244-492-7  
Gross Formula AlH3O3

#### Ingredient notes

All substances contained in this product have been notified to the Classification and Labelling (C&L) Inventory.

#### Composition Comments

This product does not contain any hazardous ingredients, or ingredients with national workplace exposure limits.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General information

CAUTION! First aid personnel must be aware of own risk during rescue!

#### Inhalation

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

#### Ingestion

Rinse mouth thoroughly.

#### Skin contact

Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

#### Eye contact

Immediately flush with plenty of water or eyewash solution for up to 10 minutes. Contact physician if irritation persists.

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

#### General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

#### Inhalation

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

#### Ingestion

May cause discomfort if swallowed.

# ALUPREM - aluminum trihydrate

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

May cause temporary eye irritation.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

Extinguishing media

The product is non-combustible. 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

No unusual fire or explosion hazards noted.

### 5.3. Advice for firefighters

Special Fire Fighting Procedures

Use fire-fighting measures appropriate to the surrounding circumstances and environment.

Protective equipment for fire-fighters

Use fire-extinguishing media appropriate for surrounding materials.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Wear protective clothing (see Section 8). Avoid inhalation of dust.

### 6.2. Environmental precautions

Cover all drains and sewers. Avoid spreading spilled material. Avoid spreading dust or contaminated materials. If possible, collect and recycle.

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

Avoid generation and spreading of dust. Remove by vacuuming and place into clearly labelled containers for subsequent disposal (see section 13).

Alternatively carefully remove by sweeping whilst wearing personal protection (see section 8).

Rinse site with copious amounts of water, which should not be allowed into drains, sewers or water courses. Provide bunding against water run-off.

### 6.4. Reference to other sections

For waste disposal, see section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Avoid inhalation of dust and contact with skin and eyes.

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

Store at moderate temperatures in dry, well ventilated area.

### 7.3. Specific end use(s)

For industrial use only.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

# ALUPREM - aluminum trihydrate

## 8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
aluminium hydroxide		No std.	No std.			

### Ingredient Comments

No exposure limits noted for ingredient(s). COSHH - see note in section 16.

#### aluminium hydroxide (CAS: 21645-51-2)

DNEL				
Industry	Inhalation.	Long Term	Local Effects	3.59 mg/m <sup>3</sup>
Consumer	Oral	Long Term	Systemic Effects	2.37 mg/kg/day
PNEC				
Freshwater	74.9	µg/l		
STP	20	mg/l		

## 8.2. Exposure controls

### Engineering measures

Provide adequate general and local exhaust ventilation.

### Respiratory equipment

Handling should take place with sufficient controlled ventilation to remove any arising dust but which does not itself lead to dust formation.

Operators should in any case wear respiratory protective equipment. Use respiratory equipment with particle filter, type P2.

### 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

Use approved safety goggles or face shield.

### Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

### Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Powder, dust
Colour	White.
Odour	Odourless.
Solubility	Insoluble in water
Initial boiling point and boiling range (°C)	2980 °C at 760 mmHg
Melting point (°C)	300 - 600°C with decomposition to alumina (aluminium oxide).
Relative density	2.44 @ 20°C
Solubility Value (G/100G H <sub>2</sub> O@20°C)	0.000009
Partition Coefficient (N-Octanol/Water)	Scientifically unjustified.
Explosive properties	Inorganic salt which is insoluble in water.
Explosive properties	Not relevant

### 9.2. Other information

Particle Size (Micron)	variable REACH dossier information
------------------------	---------------------------------------

# ALUPREM - aluminum trihydrate

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No specific reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal conditions of storage and use. See section 7. Dehydrates to aluminium oxide upon heating above 300°C

### 10.3. Possibility of hazardous reactions

Not determined.

Hazardous Polymerisation

Will not polymerise.

### 10.4. Conditions to avoid

moisture

### 10.5. Incompatible materials

Materials To Avoid

Strong acids. Bases, alkalis (inorganic).

### 10.6. Hazardous decomposition products

No hazardous decomposition products.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Toxic Dose 1 - LD 50

>5000 mg/kg (oral rat)

Toxic Conc. - LC 50

>2.3 mg/l/4h (inh-rat)

#### Acute toxicity:

Acute Toxicity (Oral LD50)

> 2000 mg/kg Rat

Acute Toxicity (Dermal LD50)

Scientifically unjustified.

Acute Toxicity (Inhalation LC50)

> 2.3 mg/l (dust/mist) Rat 4 hours

REACH dossier information

#### Respiratory or skin sensitisation:

Skin sensitisation

Guinea pig maximization test (GPMT):

Not Sensitising.

#### Germ cell mutagenicity:

Genotoxicity - In Vitro

Gene Mutation:

Negative.

Genotoxicity - In Vivo

Chromosome aberration:

Negative.

#### Reproductive Toxicity:

Reproductive Toxicity - Fertility

One-generation study: NOAEL 1000 mg/kg/day Oral Rat F1

# ALUPREM - aluminum trihydrate

## Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEL 302 mg/kg Inhalation. Rat

### Target Organs

Respiratory system, lungs

Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.

### Inhalation

Dust may irritate respiratory system or lungs. Fine particles may penetrate the lungs. See note about control of dusts in section 16.

### Ingestion

Gastrointestinal symptoms, including upset stomach.

### Skin contact

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

### Eye contact

Irritating and may cause redness and pain.

## 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

Owing to the extremely low solubility in water, the toxic levels could not be reached.

#### Acute Toxicity - Fish

LC50 96 hours > 100 mg/l Freshwater fish

#### Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 100 mg/l Daphnia magna

#### Acute Toxicity - Aquatic Plants

IC50 72 hours > 100 mg/l Scenedesmus subspicatus

### 12.2. Persistence and degradability

#### Degradability

The product solely consists of inorganic compounds which are not biodegradable.

### 12.3. Bioaccumulative potential

#### Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

#### Partition coefficient

Scientifically unjustified.

Inorganic salt which is insoluble in water.

### 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

## SECTION 13: DISPOSAL CONSIDERATIONS

### General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

# ALUPREM - aluminum trihydrate

## 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/l15.pdf>

Approved Classification and Labelling guide (Sixth edition). Chemicals (Hazard Information and Packaging for Supply)

Regulations 2009 (CHIP 4). HSE Books, or download at: <http://www.hse.gov.uk/pubns/books/l131.htm>

Guidance Notes

Workplace Exposure Limits EH40/2007 (as amended).

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 trihydrate

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.)

## 15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out.

### SECTION 16: OTHER INFORMATION

#### Information Sources

All data cited from Manufacturer's REACH Registration Dossier.

#### Revision Comments

Comprehensive revision.

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

Revision Date 04-OCT-13

Revision 07

Supersedes date 10-JUN-13

#### Risk Phrases In Full

NC Not classified.

#### Disclaimer

SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

No statements herein are to be construed as inducement to infringe any relevant patent. Under no circumstances shall seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be the Buyer's purchase price. Data and results are based on lab. work and must be confirmed by testing for its intended conditions of use.

All data and recommendations as well as formulations made herein are based on our present state of knowledge. We disclaim all liability on risks or formulae that may result from the use of our products, including improper or illicit use.

TP&T b.v., Burgemeester Moslaan 13, 8051CP, Netherlands, Tel +31 38 3388 657, Fax + 31 38 4446 207, [www.torminerals.com](http://www.torminerals.com)