



A global specialty chemicals company

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard 2012

Revision date: 30-Aug-2018

Supersedes: 21-Dec-2017

SDS Number: 13730

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product name: Chlorhydrol 50 Aluminum Chlorohydrate, USP

Other means of identification

Recommended use of the chemical and restrictions on use

Product Use Description: Formulation additive
Antiperspirant
Pharma Active Ingredients
Additive for cosmetic or pharmaceutical preparations
Caution: For manufacturing, processing, or repacking

Percent Anhydrous: 40%

Details of the supplier of the safety data sheet

Company/Undertaking Identification	Elementis SRL, Inc. 469 Old Trenton Road East Windsor, NJ 08512 USA Tel: +1 609 443 2500 Fax: +1 609 443 2422	Elementis UK Ltd. c/o Elementis GmbH Stolberger Str. 370 50933 Cologne, Germany Tel. +49 (0) 221 2923 2000
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Emergency Telephone Number For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), call CHEMTREC at: 1-800-424-9300 or 1-703-527-3887

For ALL other inquiries about this product, call Elementis at: 1-609-443-2000 (USA) or +49 (0) 221 2923 2000 (EU)

Product_Stewardship@elementis.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label Elements

EMERGENCY OVERVIEW

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance: Fluid

Physical state: Liquid

Odor: Weak

Hazards not otherwise classified (HNOC)**Other Information**

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous components, or components with exposure limits (see section 8)**

Components	CAS-No	Weight %
Aluminum chloride hydroxide (Al ₂ Cl(OH) ₅)	12042-91-0	25 - 50 %

4. FIRST AID MEASURES**FIRST AID MEASURES**

General Advice	Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.
Inhalation:	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen.
Skin contact:	Wash off immediately with soap and plenty of water. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
Eye contact:	Rinse immediately carefully and thoroughly with eye-bath or water. If eye irritation persists, consult a specialist.
Ingestion	If swallowed, seek medical advice immediately and show this SDS or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Protection of first-aiders:	Avoid contact with skin and eyes.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	None.
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Indication of any immediate medical attention and special treatment needed

Notes to physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Carbon dioxide (CO₂)
 Dry powder
 Dry sand
 Alcohol-resistant foam
 Use water spray or fog; do not use straight streams

Extinguishing media which must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

None in particular

Unusual Fire and Explosion Hazards:

May emit toxic fumes under fire conditions

Hazardous combustion products

Gaseous hydrogen chloride (HCl)

Explosion data

Explosive properties:

Not explosive

Reactivity Hazard:

None known

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Keep people away from and upwind of spill/leak. Use personal protective equipment.

Other Information: See Section 12 for more information.

Environmental precautions

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Clean-up methods: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Use neutralizing agents. Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling: Avoid contact with skin, eyes and clothing. Avoid breathing mists, dusts, or vapors. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Do not freeze. Keep containers tightly closed in a cool, well-ventilated place. Keep product and empty container away from heat and sources of ignition. Keep at temperatures below 60 °C.

Additional Storage: Unsuitable materials: steel, light- and brass alloys
Carbon steel
Suitable material:
Stainless steel
Plastic drum

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Components	ACGIH TLV	AIHA TLV	OSHA TWA	IDLH:
Aluminum chloride hydroxide (Al ₂ Cl(OH) ₅) 12042-91-0	TWA: 1 mg/m ³			

Appropriate engineering controls

Engineering Measures Maintain adequate engineering controls and/or ventilation to keep hazardous ingredients below their statutory limits. Use an approved respirator whenever exposure limits are exceeded

Individual protection measures, such as personal protective equipment

Eye protection Safety glasses.

Skin and body protection Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place

Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection Rubber gloves
Neoprene gloves

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid
Appearance: Fluid
Odor: Weak
Color: White to light yellow
Odor Threshold No data available

<u>Property</u>	<u>Values</u>	<u>Remarks / • Method</u>
pH	4	@ 20 °C (68 °F)
Melting point/range:	No data available	
Freezing point:	No data available	
Boiling Point/Range	110-115 °C (230-239 °F)	
Flash Point	No data available	
Evaporation rate	No data available	
Explosion limits:	No data available	
Vapor pressure	ca. 23 hPa (ca. 17 mm Hg)	@ 20 °C (68 °F)
Vapor density	No data available	
Density:	1.34 g/cm ³ (11.182 lbs/gal)	@ 20 °C (68 °F)
Water solubility	Completely miscible	
Solubility in other solvents	No data available	
Partition coefficient: n-octanol/water	ca. -2 log POW	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Viscosity:	10 mPas	@ 20 °C (68 °F)
Explosive properties:	Not explosive	
Oxidizing Properties	No information available	

Other Information

Bulk Density No data available

10. STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None known

Conditions to Avoid

Heat, flames and sparks

Incompatible Materials:

Contact with metals (aluminum, zinc, tin) may release hydrogen gas

Hazardous Decomposition Products

None reasonably foreseeable

11. TOXICOLOGICAL INFORMATION

Product Information

Data obtained on this product or a similar product

Information on likely routes of exposure

Inhalation:	No data available
Eye contact:	No eye irritation (OECD 405)
Skin contact:	No skin irritation (OECD 404)
Ingestion	No data available

Component Information

Components	LD50/Oral	LD50/Dermal	LC50/inhalation
Aluminum chloride hydroxide (Al ₂ Cl(OH) ₅) 12042-91-0	9187 mg/kg (Rat)	> 2000 mg/kg (Rat)	

Information on Toxicological Effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Corrosivity	No data available
Sensitization	Not a skin sensitizer (OECD 406)
Mutagenic effects	No data available
Carcinogenic effects:	There are no known carcinogenic chemicals in this product
Reproductive Toxicity:	No data available
Developmental Toxicity	No data available

Chronic Toxicity

Chronic toxicity: No data is available on the product itself

Other Adverse Effects: No data available

12. ECOLOGICAL INFORMATION

Product Information The data listed, below, is based on this or a similar product:

LC50 > 1000 mg/l (Danio rerio)

EC50 98 mg/l (Daphnia magna)

No Observable Effect Concentration (NOEC) > 1000 mg/l (Danio rerio)
40 mg/l (Daphnia magna)

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Components	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Aluminum chloride hydroxide (Al ₂ Cl(OH) ₅) 12042-91-0	EC50: 14 mg/L (72h)	LC50: > 100mg/L (Danio Rerio; 96h)	EC50: 48 mg/L (48h)

Persistence and degradability:

Not inherently biodegradable

Bioaccumulative potential:

Does not bioaccumulate

Mobility

No information available

General Note:

Do not allow product to reach ground water, water course or sewage system.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues /unused products Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with federal, state and local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

RCRA Hazardous Waste:

RCRA: Not listed

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR): Not regulated

International Air Transport Association (IATA) Not regulated

International Maritime Dangerous Goods (IMDG) Not regulated

Surface Shipments in Europe (ADR/RID): Not regulated

15. REGULATORY INFORMATION

International Inventories

USA (TSCA):	Complies
EU (EINECS):	Complies
EU REACH:	Complies
CANADA (DSL)	Complies
CANADA (NDSL):	Not applicable
JAPAN (ENCS):	Complies
PHILIPPINES (PICCS):	Complies
KOREA (KECL):	Complies
China (IECSC)	Complies
AUSTRALIA (AICS):	Complies
NEW ZEALAND (NZIoC):	Complies
TAIWAN (NECI):	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
NECI - Taiwan National Existing Chemical Inventory

EU-Regulations

For purchases from Elementis EU legal entities, all ingredients are currently registered or exempt under REACH. For purchases from non-EU Elementis legal entities with the intention to export into the EU, please contact your Elementis representative/local office.

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

None

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

TSCA Section 12(b) Export Notification

This product does not contain chemicals that are required to be notified under the TSCA 12(b) Export Notification.

State Regulations (RTK)

California Proposition 65

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects

16. OTHER INFORMATION**HMIS:**

Health: 1
Flammability: 0
Physical Hazard: 0

Previous Revision Date: 21-Dec-2017

Key/Legend: N/A: Not applicable
N/D: Not determined
ppm: Parts per million
X: Listed

Prepared by Product Stewardship

The information provided in this Safety Data Sheet is correct to the best of ELEMENTIS' knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The information relates only to the specific product designated and may not be valid for such product when used in combination with any other material or in any process, unless specified in this SDS. ELEMENTIS specifically disclaims any liability for any loss, injury or damage which may result from use or misuse of this product. All chemicals should be handled only by competent personnel, within a controlled environment. It is the buyer's/user's responsibility to ensure that his activities comply with all applicable federal, state, provincial and local laws, and to determine the conditions necessary for the safe use of this product. ELEMENTIS urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product.

End of Safety Data Sheet