

SAFETY DATA SHEET

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

1.1. Product identifier

Commercial name:

CLARIFIER

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

Product type and use: **water treatment**

Uses advised against: **None**

1.3. Information by the provider of the SDS

Supplier(Importer): Wilton Bradley Europe B.V.
Address: Barbara Strozzi laan 201, 1083HN, Amsterdam, Netherlands
Contact person (E-mail): sales@wiltonbradley.co.uk
Telephone: +44 (0)1626 835400
Fax: +44 (0)1626 836656
 Emergency telephone number
 +44 (0)333 301 0644
 Available outside office hours? YES NO

1.4. Emergency telephone number

999-
 Emergency Action: in the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and

2. HAZARD IDENTIFICATION

2.1. Classification substances or mixture

Classification (EC) 1272/2008 (CLP)

Classification:

Hazard:

2.2. Label elements

In accordance with European Regulation (EC) 1272/2008 (CLP)

Pictograms:

Warning:

Hazard:

Safety advice:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P234: Keep only in original container.
 P390: Absorb spillage to avoid material damage
 P310: Immediately call a POISON CENTER/doctor.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
 P406: Store in a corrosive resistant container with a resistant inner liner

2.3. Other dangerous

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous according to regulations on dangerous substances and preparations and their ranking.

3.1: Substances: N.A.

3.2: Mixture: The product is a mixture

Substance	Conc. (%)	Classification	Index	CAS	EINECS	REACH
Aluminum chloride, basic	5% - 15%	Met Corr Cat. 1, H290; Eye Dam. Cat 1, H318.	-	1327-41-9	215-477-2	01-211953156 3-43-****

4. FIRST AID MEASURES

4.1 General Indications	medical supervision in any case, showing this safety data sheet
First Aid in case of	
Inhalation	Remove the subject from the contaminated area as soon as possible, lying down and carry it in a calm, cool and well ventilated area. CPR or oxygen if necessary. Avoid subject cooling by covering with blanket.
Skin contact	Remove contaminated clothes. Wash skin with soap and water. Wear clean clothes. Medical supervision in case of persistent pain or redness.
Eye contact	Wash eyes immediately with running water for at least 15 minutes, keeping eyelids open. In case of difficulty in opening the lids give eye drops of analgesic (Ossibuprocaïn) In any case call a doctor.
Ingestion	Rinse mouth. Call a doctor. If the patient is conscious give him plenty of water to drink. Do not induce vomiting without medical advice. If the subject presents nervous, respiratory, cardiovascular disorders, give oxygen. If the person is unconscious, but breathing practice traditional first aid measures. Do not give sodium bicarbonate.

4.2 Most important symptoms and effects, both acute and delayed

The mixture is corrosive.

4.3 Indication of any immediate medical attention and special treatment

In the event of an accident or if you feel unwell, seek medical advice immediately (if possible show the instructions for use or the safety data sheet).

5. FIRE-FIGHTING MEASURES**5.1. Fire extinction**

Recommended extinguishing agents:	The product is not flammable or does not support the flame. In case of fire, use extinguishing media suitable for the surrounding environment.
Extinguishing agents to be avoided:	Direct jets of water on the product. Water spray to cool the containers in case of fire is allowed.

5.2. Special hazards arising from the substance or mixture

Possible development of hydrogen chloride and chlorine gas.

5.3 Advice for firefighters

Keep safe the people.

Fire protection equipment: provided that the product is not flammable, in the event of large fires in the storage area wear

a respirator and possibly complete protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Move people to a safe place. Remove any ignition sources. Consult the protective measures set out in points 7 and 8.

6.2 Environmental precautions

Avoid dispersions and leaks, in particular prevent any spills from reaching the surface water body or sewers. Dispose of the recovered product according to current regulations.

6.3 Methods and material for containment and clearing up

Collect the product with absorbent materials such as sand, diatomaceous earth. Collect the absorbed materials with mechanical means and start disposal. Then wash the area with water.

6.4 Reference to other sections

See sections 8 and 8 for further information

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Do not eat, drink, smoke or sniff tobacco in the workplace.

Ensure good ventilation, if this is not respected, do not breathe vapors and avoid contact with eyes and skin. Compliance with the safety measures governing the use and handling of chemicals is requested.

7.2 Conditions for safe storage, including any incompatibilities

Store the products in tightly closed containers, in a cool and dry area.

Given the reactivity of the product, try to keep the rooms dry and protected from contact with strong bases.

Always use suitable and corrosion-resistant containers.

7.3 Specific end use(s)

Follow the rules of good hygiene in the workplace.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Metallic aluminum and insoluble compounds;

Limit value type (country of origin): TWA (USA)

Parameter: respirable fraction

Limit value: 1 mg / m³

Version: ACGIH 2014

DNEL/DMEL

Limit value type: Worker DNEL (systemic) (Basic aluminum chloride)

Route of exposure: Inhalation

Exposure frequency: Long term (repeated)

Limit value: 16.4 mg / m³

Limit value type: Worker DNEL (systemic) (Basic aluminum chloride)

Route of exposure: Dermal

Exposure frequency: Long term (repeated)

Limit value: 4.6 mg / kg / day

PNEC

Limit value type: Aquatic PNEC, fresh water (Basic aluminum chloride)

Limit value: 0.3 µg / l

Limit value type: aquatic PNEC, sea water (basic aluminum chloride)

Limit value: 0.03 µg / l

8.2 Exposure Controls

Appropriate technical devices: If ventilation is not sufficient and any local extraction is impossible or insufficient, the whole work area must be sufficiently ventilated in an artificial way. If technical suction or ventilation is not possible, respirators must be used.

Individual protection**Eyes:** glasses with side protection or face shield with DIN EN 166 protection**Skin:** Wear tested protective gloves DIN EN 374. Material: butyl elastic rubber, PVC**Respiratory:** If the limits relating to the work environment are exceeded, it is recommended to wear appropriate CE marked CE. In particular, the use of full face masks with combined filters (EN14387) is recommended, as a support for technical measures. Try as much as possible to always guarantee efficient and adequate ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties	Value
Appearance	Liquid
Odor	None
Olfactory threshold	Not determined
pH	1 – 3
Melting / freezing point	- 11°C
Initial boiling point and boiling range	105 – 115°C
Flash Point	Not applicable
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable
Upper / Lower Flammable or Explosive	Not applicable
Vapor pressure	Not determined
Vapor density	Not determined
Relative density	1,10 ± 0,1 g/l
Solubility	Not determined
Water solubility	miscible in any ratio
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
Viscosity	Not determined
Explosive properties	Not determined
Oxidizing properties	Not determined

10. STABILITY AND REACTIVITY**10.1 Reactivity**

The product is stable in recommended storage and use conditions (see section 7)

10.2 Stability

See section 7

10.3 Possibility of hazardous reactions

Avoid contact with strong bases, but also with strong oxidants, halides, organic substances, cyanides, powdered metals.

10.4 Conditions to avoid

Avoid contact with strong bases, aluminum and zinc for hydrogen development.

10.5 Incompatible materials

See section 10.3

10.6 Hazardous decomposition products

In the event of a fire, hydrogen chloride and chlorine gas may develop.

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute toxicity:	<p>Acute oral toxicity Parameter: LD50 (basic aluminum chloride) Route of exposure: Orally Species: Rat Effective dose:> 2000 mg / kg bw</p> <p>Acute dermal toxicity Parameter: LD50 (basic aluminum chloride) Route of exposure: Dermal Species: Rabbit Effective dose:> 2000 mg / kg bw (14 days)</p> <p>Acute inhalation toxicity Parameter: LC50 (basic aluminum chloride) Route of exposure: Inhalation Species: Rat Effective dose: 5 mg / L air (4h)</p>
Skin corrosion/irritation	No irritation
Serious eye damage/ serious eye irritation	Corrosive
Respiratory or skin sensitization	No irritation
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	Not toxic
Specific target organ toxicity (STOT) - single exposure	Not toxic
Specific target organ toxicity (STOT) - repeated exposure	Not toxic
Aspiration hazard	No data available
Additional information	

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Aquatic toxicity	Exposure time: 96 h
	Parameter: Acute toxicity (Aluminum basic chloride)
	Species: Fish
	Effective dose: <156 mg / l NOEC
	Exposure time: 96 h
	Parameter: Acute toxicity (Aluminum basic chloride)
	Species: Daphnia magna
	Effective dose: 397 mg / L EC50
	Exposure time: 48 h
	Parameter: Acute toxicity (Aluminium chloride basic)
	Species: Seaweed
	Effective dose: 0.644 mg / L EC50
	Exposure time: 72 h

12.2 Persistent and degradable

Not relevant

12.3 Bioaccumulative potential

There is no indication of potential bioaccumulation

12.4 Mobility in Soil

No data available

12.5 Results of the evaluation PBT e vPvB

The substance contained in the mixture does not meet the criteria for the identification of PBT and vPvB substances according to Annex XIII of the Reach regulation. This substance does not meet the PBT / vPvB criteria of Reach regulation, annex XIII.

12.6 Other adverse affects

No adverse effects found

13. DISPOSAL CONSIDERATION**13.1 Waste treatment methods**

Advice: disposal in accordance with administrative provisions. Do not dispose of the product together with household waste. Do not enter into drains or surface water.

Uncleaned packaging: packaging is considered special waste. If the contaminated empty packs are sent for recycling or for disposal, the possible risk must be indicated to the collection staff.

14. TRANSPORT INFORMATION**14.1 ONU number****14.2 UN proper shipping name****14.3 Danger class connected to transport****14.4 Packing Group**

14.5 Environmental hazards**14.6 Special precautions for users****14.7 Transport in bulk according to annex II of MARPOL 73/78 and the IBC code****15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Regulation n. 1907/2006 / CE (REACH).
- Regulation n. 1272/2008 / CE (CLP).
- Regulation n. 790/2009 / EC (amending, for the purposes of adaptation to technical and scientific progress (ATP), of Regulation No. 1272/2008 / EC).
- EU Regulation 286/2011 (amending, for the purposes of adaptation to technical and scientific progress (ATP), of Regulation No. 1272/2008 / EC).
- EU Regulation 487/2012 (amending, for the purposes of adaptation to technical and scientific progress (ATP), of Regulation No. 1272/2008 / EC).
- EU Regulation 487/2013 (amending, for the purpose of adapting to technical and scientific progress (ATP), of Regulation No. 1272/2008 / EC).
- EU Regulation 2015/830 of 28 May 2015 (amending regulation 1907/2006)

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out

16. OTHER INFORMATION**16.1 Other information**

Description of danger phrases set out in paragraph 3	H290: May be corrosive to metals H218: Causes serious eye damage
Abbreviations and acronyms	ADR: Accord européen relative au transport international des marchandises dangereuses par route (accordo europeo relativo al trasporto internazionale delle merci pericolose su strada) ASTM: ASTM International, originariamente nota come American Society for Testing and Materials (ASTM) EINECS: European Inventory of Existing Commercial Chemical Substances (Registro Europeo delle Sostanze chimiche in Commercio) EC(0/50/100): Effective Concentration 0/50/100 (Concentrazione Effettiva Massima per 0/50/100% degli Individui) LC(0/50/100): Lethal Concentration 0/50/100 (Concentrazione Letale per 0/50/100% degli Individui) IC50: Inhibitor Concentration 50 (Concentrazione Inibente per il 50% degli Individui) NOEL: No Observed Effect Level (Dose massima senza effetti) NOEC: No Observed Effect Concentration (Concentrazione massima senza effetti) LOEC: Lowest Observed Effect Concentration (Concentrazione massima alla quale è possibile evidenziare un effetto) DNEL: Derived No Effect Level (Dose derivata di non effetto) DMEL: Derived Minimum Effect Level (Dose derivata di minimo effetto) CLP: Classification, Labelling and Packaging (Classificazione, Etichettatura e Imballaggio) CSR: Rapporto sulla Sicurezza Chimica (Chemical Safety Report) LD(0/50/100): Lethal Dose 0/50/100 (Dose Letale per 0/50/100% degli Individui) IATA: International Air Transport Association (Associazione Internazionale del Trasporto Aereo) ICAO: International Civil Aviation Organization (Organizzazione Internazionale dell'Aviazione Civile) Codice IMDG: International Maritime Dangerous Goods code (Codice sul Regolamento del Trasporto Marittimo) PBT: Persistent, bioaccumulative and toxic (sostanze persistenti bioaccumulabili e tossiche)

RID: Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regolamento concernente il trasporto Internazionale ferroviario delle merci Pericolose)
STEL: Short term exposure limit (limite di esposizione a breve termine)
TLV: Threshold limit value (soglia di valore limite)
TWA: Time Weighted Average (media ponderata nel tempo)
UE: Unione Europea
vPvB: Very persistent very bioaccumulative (sostanze molto persistenti e molto bioaccumulabili)
N.D.: Non disponibile.
N.A.: Non applicabile
VwVwS.: Text of Administrative Regulation on the Classification of Substances hazardous to waters into Water Hazard Classes (Verwaltungsvorschrift wassergefährdende Stoffe – VwVwS)
PNEC: Predicted No Effect Concentration
PNOS: Particulates not Otherwise Specified
BOD: Biochemical Oxygen Demand
COD: Chemical Oxygen Demand
BCF: BioConcentration Factor
TRGS: Technische Regeln für Gefahrstoffe -Technical Rules for Hazardous Substances, defined by The Federal Institute for Occupational Safety and Health, Germany
LCLo: Lethal Concentration Low (La minima concentrazione letale)
ThOD: Theoretical Oxygen Demand

Do not use the product for purposes other than those indicated in the Specifications.

ADVICE FOR USERS

The information contained herein is based on knowledge available at the time of issuing according to regulations relating to safety, health, environmental protection and proper use of the product.

The user must be aware of the possible risks associated with use of the product other than the one for which the product is delivered. The MSDS is not in any way excuse for the user from not knowing and applying all the regulations ruling its activities. The totality of the regulations mentioned is intended to help the user to fulfill its obligations regarding the use of hazardous products. This does not exonerate the user from ensuring that legal obligations other than those mentioned and regulating property and use of the product of which is solely responsible.

*** This sheet supersedes all previous editions.