

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

1.1. Product identifier

Product name : SUPERFLOCK PLUS_1KG_414894.

Product code : 5595292.

UFI : QH12-360G-410T-CTG4

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

Product for flocculation of swimming pool water.

1.3. Details of the supplier of the safety data sheet

Registered company name : BAYROL Deutschland GmbH (UK).

Address : Robert-Koch-Straße 4.82152.Planegg.GERMANY.

Telephone : +49 (0) 89 857 01-0. Fax : +49 (0) 89 857 01-276.

sds@bayrol.eu

www.bayrol.de

United Kingdom Legal Entity : Holt Lloyd International Limited

Unit 100, Barton Dock Road

Stretford, Manchester M32 0YQ

1.4. Emergency telephone number : (+44)(0)1865407333.

Association/Organisation : NCEC.

Other emergency numbers

Ireland : National Poisons Information Centre (+353)(0)18092166

Eitrunarmiðstöð Landspítalans (Icelandic University Hospital): 00 354 543 22 22

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Serious eye damage, Category 1 (Eye Dam. 1, H318).

May produce an allergic reaction (EUH208).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS05

Signal Word :

DANGER

Product identifiers :

EC 233-135-0

ALUMINIUM SULPHATE

EC 233-237-5

LANTHANUM CHLORIDE

Additional labeling :

EUH208

Contains LANTHANUM CHLORIDE. May produce an allergic reaction.

Hazard statements :

H318

Causes serious eye damage.

Precautionary statements - General :

P101

If medical advice is needed, have product container or label at hand.

P102

Keep out of reach of children.

Precautionary statements - Prevention :

P280

Wear protective gloves/eye protection

Precautionary statements - Response :

P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.
Precautionary statements - Storage :
P405 Store locked up.
Precautionary statements - Disposal :
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European CHemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>
The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.
The mixture does not contain substances $\geq 0.1\%$ with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	Classification (EC) 1272/2008	Note	%
CAS: 10043-01-3 EC: 233-135-0 REACH: 01-2119531538-36-XXXX ALUMINIUM SULPHATE	GHS05 Dgr Eye Dam. 1, H318		$50 \leq x \% < 100$
CAS: 10025-84-0 EC: 233-237-5 REACH: 01-2119452063-49-XXXX LANTHANUM CHLORIDE	GHS05, GHS09, GHS07 Dgr Met. Corr. 1, H290 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 2, H411		$1 \leq x \% < 2.5$

Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 10025-84-0 EC: 233-237-5 REACH: 01-2119452063-49-XXXX LANTHANUM CHLORIDE	Skin Sens. 1: H317 $C \geq 10\%$	oral: ATE = 2.621 mg/kg BW

Information on ingredients :

(Full text of H-phrases: see section 16)

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

In the event of an allergic reaction, seek medical attention.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.
Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Watch out for any remaining product between skin and clothing, watches, shoes, etc.
In the event of an allergic reaction, seek medical attention.
In case of contact with skin wash off immediately with plenty of water.
Remove contaminated soaked clothing immediately.

In the event of swallowing :

Seek medical attention, showing the label.
Rinse out mouth and give plenty of water to drink

Do not induce vomiting.

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

Risk of strong eye injuries

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

Information for the doctor :

Treat symptoms.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- sulphur dioxide (SO₂)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

Special protective equipment for fire-fighters	Use breathing apparatus with independent air supply. Wear full protective clothing.
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Additional information	Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
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SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Neutralise with an alkaline decontaminant, such as an aqueous solution of sodium carbonate or similar.

Retrieve the product by mechanical means (sweeping/vacuuming).

6.4. Reference to other sections

Safe handling: see section 7

Emergency telephone number: see section 1

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid eye contact with this mixture at all times.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

Do not store together with food.

Storage

Keep out of reach of children.

Keep container tightly closed.

Storage: cool and dry

Storage stability

Storage time: 5 years.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

See section 1.2

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

LANTHANUM CHLORIDE (CAS: 10025-84-0)

Final use:

Exposure method:

Potential health effects:

DNEL :

Workers.

Dermal contact.

Long term systemic effects.

123 mg/kg body weight/day

Exposure method:

Dermal contact.

Potential health effects:

Long term local effects.

DNEL :

123 mg/kg body weight/day

Exposure method:

Inhalation.

Potential health effects:

Long term systemic effects.

DNEL :

108.44 mg of substance/m3

ALUMINIUM SULPHATE (CAS: 10043-01-3)

Final use:

Exposure method:

Potential health effects:

DNEL :

Workers.

Dermal contact.

Long term systemic effects.

3.8 g/kg body weight/day

Exposure method:

Inhalation.

Potential health effects:

Long term systemic effects.

DNEL :

13.4 mg of substance/m3

Final use:

Consumers.

Exposure method:

Ingestion.

Potential health effects:

Long term systemic effects.

DNEL :

1.9 mg/kg body weight/day

Exposure method:

Inhalation.

Potential health effects:

Long term systemic effects.

DNEL :

3.3 mg of substance/m3

Predicted no effect concentration (PNEC):

LANTHANUM CHLORIDE (CAS: 10025-84-0)

Environmental compartment:

PNEC :

Soil.

27.5 mg/kg

Environmental compartment:

Fresh water.

PNEC :

0.0176 mg/l

Environmental compartment:

Sea water.

PNEC :

0.00176 mg/l

Environmental compartment:

Fresh water sediment.

PNEC :

23.27 mg/kg

Environmental compartment:	Waste water treatment plant.
PNEC :	12.5 mg/l
ALUMINIUM SULPHATE (CAS: 10043-01-3)	
Environmental compartment:	Fresh water.
PNEC :	0.03 mg/kg
Environmental compartment:	Sea water.
PNEC :	0.03 µg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

Prescription glasses are not considered as protection.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

Suitable materials (recommended: protection index 6, >480 minutes permeation time according to EN 374)

Nitrile-butadiene rubber (NBR) - 0.4 mm layer thickness

Butyl rubber (butyl) - 0.7mm layer thickness

In view of the many different types, the manufacturers' directions for use must be followed

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid inhaling dust.

Type of FFP mask :

Wear a disposable half-mask dust filter in accordance with standard EN149/A1.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state :	Solid.
Form :	Tablet

Colour

light grey

Odour

Odour threshold :	Not stated.
odourless	

Melting point

Melting point/melting range :	90 - 95 °C
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Freezing point

Freezing point / Freezing range :	Not stated.
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Boiling point or initial boiling point and boiling range

Boiling point/boiling range :	Not specified.
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Flammability

Flammability (solid, gas) :	Not stated.
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Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) :	Not stated.
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Explosive properties, upper explosivity limit (%) :	Not stated.
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Flash point

Flash point interval :	Not relevant.
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Auto-ignition temperature

Self-ignition temperature :	Not specified.
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Decomposition temperature

Decomposition point/decomposition range :	Not specified.
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pH

pH :	3.50 +/- 0.5.
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Slightly acidic.

pH (aqueous solution) :	3.0 - 4.0 à 50 g/L -20°C
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Kinematic viscosity

Viscosity :	Not stated.
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Solubility

Water solubility :	Soluble. 600 g/L à 20 °C
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Fat solubility :	Not stated.
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Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water :	Not stated.
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Vapour pressure

Vapour pressure (50°C) :	Not relevant.
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Density and/or relative density

Density :	1.5 g/cm3
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Relative vapour density

Vapour density :	Not stated.
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9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity**

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Keep away from :

- strong oxidising agents

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

Sulphur trioxide (SO3) - mist

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

11.1.1. Substances

Acute toxicity :

LANTHANUM CHLORIDE (CAS: 10025-84-0)

Oral route : LD50 = 2.621 mg/kg bodyweight/day
Species : Rat

Dermal route : LD50 > 1.638 mg/kg bodyweight/day
Species : Rabbit

ALUMINIUM SULPHATE (CAS: 10043-01-3)

Oral route : LD50 > 9000 mg/kg bodyweight/day

Dermal route : LD50 > 5000 mg/kg bodyweight/day

Inhalation route (Dusts/mist) : LC50 > 5000 mg/l

Germ cell mutagenicity :

LANTHANUM CHLORIDE (CAS: 10025-84-0)

Ames test (in vitro) : Negative.

Specific target organ systemic toxicity - repeated exposure :

LANTHANUM CHLORIDE (CAS: 10025-84-0)

Oral route : C >= 1122 mg/kg bodyweight/day
Duration of exposure : 90 days

11.1.2. Mixture

Respiratory or skin sensitisation :

Contains at least one sensitising substance. May cause an allergic reaction.

11.2. Information on other hazards

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

LANTHANUM CHLORIDE (CAS: 10025-84-0)

Fish toxicity : NOEC = 0.46 mg/l
Species : Cyprinus carpio
Duration of exposure : 21 days

Crustacean toxicity : EC50 = 2.083 mg/l
Species : Daphnia sp.
Duration of exposure : 48 h

NOEC = 0.176 mg/l
Species : Daphnia magna
Duration of exposure : 21 days

Algae toxicity : ECr50 = 28.2 mg/l
Species : Desmodesmus subspicatus
Duration of exposure : 72 h

NOEC = 2.3 mg/l
Species : Desmodesmus subspicatus

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

Biological degradability Inorganic product, cannot be eliminated from the water by biological purification processes.

12.2.1. Substances

LANTHANUM CHLORIDE (CAS: 10025-84-0)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

ALUMINIUM SULPHATE (CAS: 10043-01-3)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

12.3.1. Substances

LANTHANUM CHLORIDE (CAS: 10025-84-0)

Octanol/water partition coefficient : log K_{ow} = 6.295

Bioaccumulation : BCF < 0.8

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number or ID number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

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14.7. Maritime transport in bulk according to IMO instruments

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SECTION 15: Regulatory information

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

Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

Container information:

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):

<https://echa.europa.eu/substances-restricted-under-reach>.

Particular provisions :

No data available.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H290	May be corrosive to metals.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

UFI : Unique formulation identifier.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS05 : Corrosion

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.