Safety Data Sheet dated 4/9/2017, version 3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Mixture identification:
Trade name: FLOC SUPER
1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified use:
Flocculant based on aluminum and inorganic polyelectrolytes.
Uses advised against:
Any other use different from the identified uses.
1.3. Details of the supplier of the safety data sheet
Company:
BARCHEMICALS SRL
VIA S.ALLENDE 14
CASTELNUOVO RANGONE (MO)
ITALY
PHONE. +39 059/536502
FAX. +39 059/536742
www.barchemicals.it
Competent person responsible for the safety data sheet:
barani.corrado@barchemicals.it
1.4. Emergency telephone number
Barani Dr.Corrado - MOBILE PHONE. +39 335/6109383

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
EC regulation criteria n°1272/2008 (CLP)
Warning, Met. Corr. 1, May be corrosive to metals.

Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:
No other hazards
2.2. Label elements
Hazard pictograms:

Danger
Hazard statements:
H290 May be corrosive to metals.
H318 Causes serious eye damage.
Precautionary statements:
P102 Keep out of reach of children.
P234 Keep only in original container.
P280 Wear protective gloves/clothing and eye/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P390 Absorb spillage to prevent material damage.
P406 Store in corrosive resistant container.

Special Provisions:
None

Contains
Aluminum polydroxycloride

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards
vPvB Substances: None - PBT Substances: None

Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances
N.A.

3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 10% - < 12.5%	Aluminum polydroxycloride	CAS: 1327-41-9 EC: 215-477-2 REACH No.: 01-2119531563-43	2.16/1 Met. Corr. 1 H290 3.3/1 Eye Dam. 1 H318

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:
Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of eyes contact:
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:
Rinse well your mouth
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.
In case of breathing difficult, bring the injured person into the open air and store it in a comfortable position for breathing. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed
Contact with the skin produces redness, burning and pain.
Accidental ingestion may cause abdominal pain.

4.3. Indication of any immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:

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In case of contact with eyes, rinse immediately for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
If swallowed, rinse mouth and drink water. Consult a doctor as soon as possible.
After contact with skin, wash immediately with plenty of soap and water.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water.
Carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons:
None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters

Immediately isolate the area by removing all persons from the area of the accident in the event of a fire. No action shall be taken involving any personal risk or without proper training. Firefighters must wear protective equipment and self-contained breathing apparatus (SCBA) with a full-face mask on the working face at positive pressure. Fire extinguishers (including helmets, protective boots and gloves) conforming to European Standard EN469 will provide basic protection for chemical accidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Remove all sources of ignition.
Remove persons to safety.
See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Stop the escape if there is no risk. Move the containers from the spill area. Get closer to the source of overwhelming emission. Prevent spills in sewage systems, waterways, basements or restricted areas. Wash and convey the spilled amounts in a waste treatment plant.
Collect spills with non-combustible material, absorbent material, sand, earth, vermiculite and dispose of the product according to the regulations in force.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store at room temperature and away from direct sunlight.
Recommended temperature range: min 5 ° C, max 40 ° C.

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Keep away from food, drink and animal feed
Do not eat, drink or smoke at the workplace. Foods and beverages should be consumed only in areas specifically identified after removing contaminated clothing and protective equipment and after washing your hands. Wash in any case hands after handling the substance / mixture.
Do not pour the product into other containers. Always use the original container.
Keep away from food, drink and feed.
Incompatible materials:
See the next paragraph 10.
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)
See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Aluminum polydroxycloride - CAS: 1327-41-9
ACGIH - TWA: 2.0 mg/m3 - Notes: Come AL

DNEL Exposure Limit Values
Aluminum polydroxycloride - CAS: 1327-41-9
Worker Professional: 20.2 03 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Professional: 3.4 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values
Aluminum polydroxycloride - CAS: 1327-41-9
Target: Fresh Water - Value: 0.0003 mg/l
Target: Marine water - Value: 0.00003 mg/l
Target: Microorganisms in sewage treatments - Value: 20 mg/l

8.2. Exposure controls
Eye/face protection:
Eye glasses with side protection.EN166
Protection for skin:
Wear clothing that provide comprehensive protection to the skin, eg. cotton, rubber, PVC or viton.
Protection for hands:
Gloves resistant to chemicals. EN 374
Respiratory protection:
Not necessary in normal use.
Thermal Hazards:
Not applicable (the product is handled at room temperature)
Environmental exposure controls:
Do not allow the product to be absorbed from the soil or from entering waterways or sewers.
Do not let product enter drains. Discharge into the environment must be avoided.
Appropriate engineering controls:
Ensure adequate ventilation. Comply with the maximum concentration values in the workplace.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Liquid Yellow	--	--
Odour:	Weak	--	--
Odour threshold:	N.A.	--	--
pH:	1	--	at 20 °C

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Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	> 100 °C	--	at 760 mm Hg
Flash point:	Not inflammable	--	--
Evaporation rate:	Not Available	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	Not Available	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	Not Available	--	--
Relative density:	1.21 Kg/l	--	--
Solubility in water:	Complete	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	Not Available	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	> 200 °C	--	--
Viscosity:	Not Available	--	--
Explosive properties:	Not explosive product	--	--
Oxidizing properties:	Non Oxidant	--	--

9.2. Other information

Properties	**Value**	**Method:**	**Notes:**
Miscibility:	Not Available	--	--
Fat Solubility:	Not Available	--	--
Conductivity:	Not Available	--	--
Substance Groups relevant properties	N.A.	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is not pyrophoric.
May be corrosive to metals.
10.2. Chemical stability
Stable under recommended storage and handling. Please refer to section 7 of the MSDS.
10.3. Possibility of hazardous reactions
Acids.
In the presence of alkalis and metals.
Possible hazardous reaction with reducing agents.
10.4. Conditions to avoid
Keep away from heat sources.
10.5. Incompatible materials
Reducing agents.
Concentrated acids.
concentrated alkali.
10.6. Hazardous decomposition products
Hydrochloric acid.

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

Aluminum polydroxycloride - CAS: 1327-41-9

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg - Source: STUDY REPORT 1986 (ECHA) - Notes: OECD GUIDELINE 401 (ACUTE ORAL TOXICITY)
Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Source: STUDY REPORT 1986 (ECHA) - Notes: OECD GUIDELINE 402 (ACUTE DERMAL TOXICITY)
Test: LC50 - Route: Inhalation - Species: Rat > 5 mg/m3

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit No - Source: STUDY REPORT 1996 (ECHA) - Notes: OECD GUIDELINE 404 (ACUTE DERMAL IRRITATION / CORROSION)

c) serious eye damage/irritation:

Test: Eye Corrosive - Species: Rabbit No - Source: STUDY REPORT 1996 (ECHA) - Notes: OECD GUIDELINE 405 (ACUTE EYE IRRITATION / CORROSION)

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Species: .porc No - Source: STUDY REPORT 1986 (ECHA) - Notes: OECD GUIDELINE 406 (SKIN SENSITISATION)

e) germ cell mutagenicity:

Test: Mutagenesis No - Source: STUDY REPORT 2010 (ECHA) - Notes: OECD GUIDELINE 476 (IN VITRO MAMMALIAN CELL GENE MUTATION TEST)

g) reproductive toxicity:

Test: Reproductive Toxicity No - Source: STUDY REPORT 2007 (ECHA) - Notes: OECD GUIDELINE 422 (COMBINED REPEATED DOSE TOXICITY STUDY WITH THE REPRODUCTION)

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

a) acute toxicity;
b) skin corrosion/irritation;
c) serious eye damage/irritation;
d) respiratory or skin sensitisation;
e) germ cell mutagenicity;
f) carcinogenicity;
g) reproductive toxicity;
h) STOT-single exposure;
i) STOT-repeated exposure;
j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

No information is available on the mixture as a whole. This is the information on eco-toxicological effects of the individual components.

Aluminum polydroxycloride - CAS: 1327-41-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 0.15 mg/l - Duration h: 96 - Notes: DANIO RERIO - ECHA
Endpoint: EC50 - Species: Daphnia = 38 mg/l - Duration h: 48 - Notes: ECHA
Endpoint: EC50 - Species: Algae = 14 mg/l - Duration h: 96 - Notes: ECHA

f) Effects in sewage plants:

Endpoint: EC10 - Species: activated sludge > 1000 mg/l - Duration h: 3 - Notes: ECHA

12.2. Persistence and degradability

N.A.

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12.3. Bioaccumulative potential
N.A.
12.4. Mobility in soil
N.A.
12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
12.6. Other adverse effects
None

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.
Additional disposal information:
Retrieve if possible. Send to authorized disposal plants or incineration under controlled conditions. Work according to local and national regulations. Recover if possible. Send to authorized disposal plants or for incineration under controlled conditions. Operate according to local and national regulations.

SECTION 14: Transport information

14.1. UN number

ADR-UN Number:	2581
IATA-UN Number:	2581
IMDG-UN Number:	2581

14.2. UN proper shipping name

ADR-Shipping Name:	ALUMINIUM CHLORIDE SOLUTION
IATA-Shipping Name:	ALUMINIUM CHLORIDE SOLUTION
IMDG-Shipping Name:	ALUMINIUM CHLORIDE SOLUTION

14.3. Transport hazard class(es)

ADR-Class:	8
ADR - Hazard identification number:	80
IATA-Class:	8
IMDG-Class:	8

14.4. Packing group

ADR-Packing Group:	III
IATA-Packing group:	III
IMDG-Packing group:	III

14.5. Environmental hazards

ADR-Enviromental Pollutant:	No
IMDG-Marine pollutant:	No

14.6. Special precautions for user

ADR-Subsidiary risks:	-
ADR-S.P.:	-

ADR-Transport category (Tunnel restriction code): 3 (E)

IATA-Passenger Aircraft:	852
IATA-Subsidiary risks:	-
IATA-Cargo Aircraft:	856
IATA-S.P.:	A3 A803
IATA-ERG:	8L
IMDG-EmS:	F-A , S-B

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IMDG-Subsidiary risks: -
IMDG-Stowage and handling: Category A
IMDG-Segregation: -

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
Restrictions related to the product:
Restriction 3
Restrictions related to the substances contained:
No restriction.

Where applicable, refer to the following regulatory provisions :
Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):
Seveso III category according to Annex 1, part 1
None

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for the mixture.
Substances for which a Chemical Safety Assessment has been carried out:
None

SECTION 16: Other information

For professional use.

Full text of phrases referred to in Section 3:
H290 May be corrosive to metals.
H318 Causes serious eye damage.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
Eye Dam. 1	3.3/1	Serious eye damage, Category 1

Paragraphs modified from the previous revision:

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SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

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It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.
For professional use.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.

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TWA: Time-weighted average
WGK: German Water Hazard Class.

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