Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

UFI	**X8J0-P0NR-X00R-M567**
Product name	**BOETTA II ORANGE SMOKE**
FAMILY IDENTIFICATION	**Aerosol smoke generator**

It is a pyrotechnic article whose effects are generated by the mixtures of chemical powders contained in relation to the project, its size and shape. The article is placed on the market packaged and perfectly closed so that in normal conditions of holding, handling and transport there can be no exposure for the user as the chemical mixtures would remain closed and isolated inside the article. Any tampering with the packaging of the article is prohibited.
Exposure is possible only following use for the emission of fumes, which in normal conditions and outdoors, would be dispersed in the air and would not give rise to dangerous concentrations or as a result of abnormal conditions of use (for example use not outdoors, excessive concentration of fumes in the air as a result of unfavorable weather conditions, etc.) and / or detention and / or storage and / or transport and / or intentional opening (strongly discouraged and prohibited) and / or opening accidental and / or disposal of the product that would make its contents come out. In case of use, the possible emissions, easily assimilated by the outside air, consist of NO, NOx, CO, COx. health or the environment. Abnormal conditions of use can create health problems for people or the environment if the item is activated in the direction of people and / or combustible elements or in the vicinity of them. In these cases, follow the instructions given in this SDS. In the case of a large number of artifices, single or whole packages, it must be remembered that it is an explosive material and therefore in the instructions below, the possibility of an accident due to fire and / or explosion involving a large number of items is taken into account. (whole packages, large numbers, including loose ones, transport, stacks of packages, etc.)

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

Intended use	**Distress signal at sea for use on ships, rafts, lifeboats and for pleasure craft.** **Use according to the manufacturer's instructions. Distress signal at sea for use on ships, rafts, lifeboats and for pleasure craft.** **It produces a thick orange smoke for the duration of 3 minutes.** **It is not intended for use other than that indicated.** **Use is permitted only where required by law.** **It is strictly forbidden to open and / or any type of modification and / or manipulation of the product.**

Identified Uses	Industrial	Professional	Consumer
Distress signal at sea for use on ships, rafts, lifeboats and for pleasure craft.	-	✔	✔

1.3. Details of the supplier of the safety data sheet

Name	**ALBATROSS S.r.l.**
Full address	**Viale A. Gramsci, 13**
District and Country	**80122 NAPOLI - ITALY**
	+39 081 8265444
	www.albatrosssrl.com
	info@albatrosssrl.com

1.4. Emergency telephone number

For urgent inquiries refer to	**+39 081 8265444 (office hours)**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Explosive, division 1.4	H204	Fire or projection hazard.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H204	Fire or projection hazard.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234	Keep only in original packaging.
P240	Ground and bond container and receiving equipment.
P250	Do not subject to grinding / shock / friction / . . .
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P370+P372+P380+P373	In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.
P370+P380+P375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P501	Dispose of the product / container in accordance with the legislation in force concerning waste treatment
P102	Keep out of reach of children.
P401	Store in accordance with the local regulations for explosives.

Contains:	Potassium chlorate

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration >= 0.1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
1,4-dihydroxyanthraquinone		
CAS 81-64-1	30 ≤ x < 32,5	Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10
EC 201-368-7		
INDEX -		
REACH Reg. 01-219971261-41-XXXX		
Potassium chlorate		
CAS 3811-04-9	25 ≤ x < 26,5	Ox. Sol. 1 H271, Acute Tox. 4 H302, Acute Tox. 4 H332, Aquatic Chronic 2 H411
EC 223-289-7		STA Oral: 500 mg/kg, STA Inhalation mists/powders: 1,5 mg/l
INDEX -		
REACH Reg. 01-2119494917-18-XXXX		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

General indications
First aid rescuer:
If the artifice is triggered or is in conditions of imminent triggering, it could activate and explode in a very short time, projecting fiery elements. in the vicinity of the product and the natural and / or artificial barriers present.
If the intervention is essential, ATTENTION to protect yourself from projections and flames, and in the case of large quantities from shock wave and flame wave. Keep the safety distance required by law in relation to the quantity of material present and the natural and / or artificial barriers present. Do not approach as it could cause death or extremely high health dangers.
The injured person should be rescued following an explosion only if there is no danger of other explosion or if the equipment supplied is such as to allow him to approach.
If possible help, take the injured person to fresh air and keep him calm. Discard contaminated clothing.
In case of danger of unconsciousness, place the person in a stable position, lying on his side, even during transport.
In the case of only opening and / or handling of the same with release of the contained mixtures or inhalation of high concentration fumes following ignition of the product alone or together with others, follow the instructions given below.

Skin contact
In case of accidental contact with the pyrotechnic effects following ignition, burns and even severe burns on the skin may occur. The product must be used correctly, following the instructions on the label. Pour a lot of cold water on the part affected by the burns. Clean up and Keep the part clean. Consult a physician.
Wash clothing contaminated by the mixtures immediately with water (fire hazard). In case of contact with the skin, wash immediately with polyethylene glycol 400, then with plenty of water.
In case of contact between the skin and the mixtures contained following accidental opening and / or manipulation of the product content, which is strictly prohibited, it is necessary to wash immediately with plenty of water, avoiding residues on the skin. Washing should be repeated using skin cleansers.

Eye contact
In case of accidental contact with its contents, wash immediately and abundantly for at least 10-15 minutes (with running water if possible) keeping the eyelids wide open. If necessary, consult a doctor. Remove any contact lenses.
In case of contact with the effects of the explosion, the eye could suffer a strong trauma caused by the impact with an incandescent element.

Inhalation
Excessive inhalation can cause irritation of the respiratory tract. Symptoms can be difficulty breathing, headache or nausea or stopping breathing. Always and in any case take the injured person to an open and ventilated place and consult a doctor immediately.
If breathing difficulties persist, give artificial respiration, preferably mouth to mouth, and if necessary give oxygen. These operations must be carried out by qualified personnel.

Ingestion
Get medical attention immediately by showing him the label and packaging. Do not induce vomiting. Rinse mouth immediately and give plenty of water.

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

The impact with the pyrotechnic effects of the article, once triggered, consisting of fiery elements that are launched and / or explosions with consequent shock and flame waves, could cause severe trauma and even death if it concerns large quantities .
Once switched on, this product ignites and can cause burns / bruises / lacerations / strong mechanical stress to those in the vicinity and not at safe distances. Excessive inhalation of the fumes can cause irritation of the respiratory tract.
Prolonged exposure to fumes or vapors generated during use can cause irritation of the eyes and mucous membranes and the respiratory tract and the formation of meta-hemoglobin with consequent effects on the blood.
In case of inhalation: Irritation of mucous membranes, cough, Respiratory failure, damage to the respiratory tract.
Skin contact: Strong skin absorption as the main danger of occupational poisoning with paralysis of the central nervous system (in severe cases with fatal consequences) as well as liver and kidney damage.
After eye contact: Corrosions

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

Immediately bring to the emergency room in case of injury related to product activation.
In the event of exposure to the contents of the product, a doctor should be contacted in the event that any type of illness has prolonged effects. Preferably take the patient to the emergency room.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING MEDIA
On objects that explode it is not possible to intervene with extinguishing means, it is only necessary to keep away until any possibility of ignition of the explosives present is over. Keep away in case of fire or imminent fire in the vicinity of the articles as the proximity to elements such as high temperature heat, open flames, sparks, electric discharges, sparks, can cause ignition. Do not use water.
Approach only when you are certain that there will be no other explosions of nearby exploding elements present.
Violent streams of water could cause the piles to fall and cause further danger.
Water is not needed in the event of an explosion. The explosion, when the risk is imminent, occurs in unpredictable but very short times and with extremely high combustion rates.
Only use extinguishing means when the danger of explosion has ceased.
Suitable extinguishing media, when it is certain that the possibility of explosion has ceased, are water, foam, chemical powders. Use CO2 in the absence of anything else.
Avoid in any way that the fire reaches the product. In this case, avoid any intervention and take refuge behind suitable shelter, the explosion may be imminent.
Evacuate the area where the artifices are present.
Approaching artifices during an explosion or in the event of an open flame nearby and / or an imminent explosion and / or explosion, causes death or very serious injuries. Avoid any approach.
The fumes can be very harmful if in high concentration.
The area becomes particularly dangerous as the number of pyrotechnic articles present increases. It can cause death to anyone present. Keep a safe distance, evacuate the area and take refuge in any case behind suitable shelter.

UNSUITABLE EXTINGUISHING MEDIA
Do not use suffocation systems in the event of an explosion or imminent explosion. The pyrotechnic fires, once triggered, are self-combusting and explode causing shock waves and flame waves. Always stay at a safe distance. Never use water on items that are exploding or about to explode. Keep away. The shock wave and the flame wave are lethal within the safety area which depends on the number of artifices present and increases with the increase in their number.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Avoid breathing combustion products.

The artifact burns rapidly in the event of a fire, and explodes if large quantities are involved. It can explode on impact or heating. Potassium nitrate is a strong oxidant and decomposes due to strong heating, developing nitrogen and oxygen oxides that promote fire. Developing noxious or irritating fumes or gases.
Prolonged exposure to fumes or vapors generated during the fire can cause irritation of the respiratory tract, eyes and mucous membranes.
Waves of pressure and flame, as well as launches of flames and objects of fire at high speed which can be lethal or highly dangerous to your health if you are close to the product while it explodes.

5.3. Advice for firefighters

Isolate the area. Remove strangers and evacuate the area. Wear protective clothing and keep a safe distance. If possible, remove the artifacts not involved in the fire. Do not try to fight a fire that involves pyrotechnic devices, especially if in large quantities, but let every possible outbreak extinguish before approaching.
Prevent fire and / or heat and / or sparks from reaching the artifacts. Do not use choking systems. Fireworks are self-combusting and explode even in confined spaces.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid the formation of dust by spraying the product with water if there are no contraindications.
Wear suitable protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing. These indications are valid both for the workers and for emergency interventions.

6.2. Environmental precautions

Defective artifacts that have not exercised their function must be immersed in a bucket of water and returned to the source of origin. The solid or powder content of the product must be recovered carefully placed in a cardboard box and immersed in water. The waste generated by the product must be disposed of in accordance with local regulations in force.

6.3. Methods and material for containment and cleaning up

Collect the spilled product and place it in containers for recovery or disposal. Eliminate the residue with jets of water if there are no contraindications.
Provide sufficient ventilation of the place affected by the leak. Evaluate the compatibility of the container to be used with the product, checking section 10.
The disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

The manipulation (opening and / or transformation) of the product is strictly prohibited under normal conditions.
Take the necessary precautions against possible accidental triggers:
- keep the product away from naked flames, heat, sparks and other substances.
- do not subject the product to significant impacts and friction
- use suitable tools for explosive operations
- adopt protective measures against electrostatic charges
- during the loading operations, handle the product with care in order to avoid damage and cuts to the coating and possible releases of the explosive contained.
-It is forbidden to eat, drink and smoke in the areas where the material is used. During the loading operations, handle the product with care in order to avoid breaking the packages and possible releases of the explosive contained.
- Keep the product in the original container.
Respect the legislation on safety and hygiene at work.
Use the product in accordance with the manufacturer's instructions.
Handle with care and with great caution. Avoid any impact, friction and mechanical stress. NOT SMOKING. After use, do not approach the product but let it cool. Do not consume food or drinks during use or in areas where there is a risk of contamination by the contents of the product as a result of unwanted spillage of the same. In these cases, the presence of people with specialist knowledge is required who, wearing the PPE required by the specific risk assessment, collect the contents, place it in suitable containers and arrange for its disposal in accordance with the law and applying all the criteria to reduce the risks.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in the original container. Store in a ventilated place, away from sources of ignition. Keep containers tightly closed. Keep the product in clearly labeled containers. Avoid overheating. Avoid violent shocks. Keep containers away from any incompatible materials, checking section 10.

Storage class TRGS 510 (Germany):
1

Store according to national legislation. Observe the instructions on the label. Store in a dry and well-ventilated place, away from heat sources and direct sunlight. Keep away from sources of ignition. Keep away from oxidizing agents and strongly acidic or alkaline materials.
Not smoking. Avoid entry to unauthorized people.
Do not store at high temperatures (possibly store at room temperature). Store away from moisture and water. Avoid open flames, sparks, sources of high temperature heat, electrical discharges, mechanical stress, friction and exposure to water. Store in an area that cannot be reached by minors. Deposit and hold in compliance with the law.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

1,4-dihydroxyanthraquinone								
Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,000044	mg/l			
Normal value in marine water				0,0000044	mg/l			
Normal value of STP microorganisms				0,0025	mg/l			
Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Skin								0,8 mg/kg bw/d

Potassium chlorate								
Predicted no-effect concentration - PNEC								
Normal value in fresh water				1,15	mg/l			
Normal value in marine water				1,15	mg/l			
Normal value for fresh water sediment				4,14	mg/kg			
Normal value for marine water sediment				4,14	mg/kg			
Normal value of STP microorganisms				115	mg/l			
Normal value for the food chain (secondary poisoning)				12,78	mg/kg			
Normal value for the terrestrial compartment				3,83	mg/kg			
Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,05 mg/kg bw/d				
Inhalation								0,7 mg/m3

Skin	5 mg/kg bw/d

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION
Protect hands with category II work gloves (ref. Directive 89/686 / EEC and standard EN 374) such as in PVC, neoprene, nitrile or equivalent. For the final choice of the work glove material, the following must be considered: degradation, breakthrough time and permeation.
In the case of preparations, the resistance of work gloves must be checked before use as it is not foreseeable. Gloves have a wear time that depends on the duration of exposure.

SKIN PROTECTION
In case of handling due to spillage of the non-triggered product, wear antistatic work clothes with long sleeves and antistatic safety footwear for professional use of category II (ref. Directive 89/686 / EEC and standard EN 344). Wash with soap and water after removing protective clothing.

EYE PROTECTION
In the case of handling due to leakage of the non-triggered product Wear airtight protective goggles (ref. Standard EN 166).
In the event of an element triggered or about to trigger, move away or protect yourself behind suitable shelter. If you cannot help but stay in the area, use suitable protection for fiery projections, shock waves and flame waves. The protection must protect eyes, neck and head.

RESPIRATORY PROTECTION
In case of exceeding the threshold value (if available) of one or more of the substances present in the product, referring to the daily exposure in the workplace or to a fraction established by the company prevention and protection service, wear a semifacial type filter. FFP3 (ref. Standard EN 141 / EN 143).
The use of respiratory protection means, such as masks of the type indicated above, is necessary in the absence of technical measures to limit worker exposure. The protection offered by the masks is however limited.
In the event that the substance in question is odorless or its olfactory threshold is higher than the relative exposure limit and in case of emergency, i.e. when the exposure levels are unknown or the concentration of oxygen in the work environment is lower
at 17% by volume, wear an open-circuit compressed air self-contained breathing apparatus (ref. standard EN 137) or respirator with external air intake for use with full face mask, half mask or mouthpiece (ref. standard EN 138).
Provide an eye wash and emergency shower system.

ENVIRONMENTAL EXPOSURE CONTROLS
Emissions from manufacturing processes, including those from ventilation equipment should be controlled for compliance with environmental protection legislation.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	Solid containing mixed pyrotechnic composition	
Colour	orange	
Odour	Not available	
Melting point / freezing point	Not available	
Initial boiling point	Not applicable	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	

Flash point	Not applicable
Auto-ignition temperature	Not available
pH	Not available
Kinematic viscosity	Not available
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Vapour pressure	Not available
Density and/or relative density	Not available
Relative vapour density	Not available
Particle characteristics	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

Contains hygroscopic substances - Stable under normal conditions of use

10.2. Chemical stability

Information not available

10.3. Possibility of hazardous reactions

The product may react violently with water.

10.4. Conditions to avoid

Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Oral) of the mixture:	1886,79 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

1,4-dihydroxyanthraquinone

LD50 (Oral):	5000 mg/kg
LD50 (Dermal):	2500 mg/kg

Potassium chlorate

LD50 (Oral):	5000 mg/kg
STA (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Dermal):	2000 mg/kg

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Respiratory sensitization

Information not available

Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Potassium chlorate	
LC50 - for Fish	1000 mg/l/96h
EC50 - for Crustacea	1000 mg/l/48h
EC50 - for Algae / Aquatic Plants	735 mg/l/72h
Chronic NOEC for Fish	500 mg/l
Chronic NOEC for Crustacea	500 mg/l
1,4-dihydroxyanthraquinone	
EC50 - for Crustacea	0,134 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,044 mg/l/72h

12.2. Persistence and degradability

Information not available

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with

environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

The finished product or in any case become waste as well as its contents must be sent to an authorized landfill or incinerator and disposed of in any case in accordance with local regulations in force.
The article after being lit can be considered as dangerous waste (waste fireworks) if there are unexploded shots or parts of it left. If there are no unexploded shots left, the article, after being ignited, must be considered as contaminated packaging containing residues of dangerous substances.

Contaminated packaging
The residues of the product, after being lit, constitute a packaging contaminated with dangerous substances.
The expired or deteriorated artifact or in any case to be disposed of is to be considered a dangerous waste consisting of waste fireworks.

Other information
CER code article: 16 04 03 * (waste fireworks)
EWC code: contaminated packaging: 15 01 10 * packaging containing residues of dangerous substances or contaminated by these substances
In Italy, dispose of according to Legislative Decree no. 152/2006.
DECREE OF THE MINISTRY OF THE ENVIRONMENT AND OF THE PROTECTION OF THE TERRITORY
E DEL MARE of 12 May 2016, n. 101.
Regulation identifying the methods of collection, disposal and destruction of explosive products, including those that have expired, and of the waste produced by the lighting of pyrotechnics of any kind, including those for rescue purposes, pursuant to article 34 of the legislative decree 29 July 2015, n. 123.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA:	0507

14.2. UN proper shipping name

ADR / RID:	SIGNALS, SMOKE
IMDG:	SIGNALS, SMOKE
IATA:	SIGNALS, SMOKE

14.3. Transport hazard class(es)

ADR / RID:	Class: 1	Label: 1.4S
IMDG:	Class: 1	Label: 1.4S
IATA:	Class: 1	Label: 1.4S

14.4. Packing group

ADR / RID, IMDG, IATA: -

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: -- Special provision: -	Limited Quantities: -	Tunnel restriction code: (E)
IMDG:	EMS: F-B, S-X	Limited Quantities: -	
IATA:	Cargo:	Maximum quantity: 100 Kg	Packaging instructions: 135
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 135
	Special provision:	A802	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: P1b

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

None

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Regulated explosives precursor
The acquisition, introduction, possession or use of that regulated explosives precursor by members of the general public is subject to reporting obligations as set out in Article 9.
All suspicious transactions and significant disappearances and thefts must be reported to the relevant national contact point.

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

Potassium chlorate - (CHLORATE)

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 3: Severe hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Expl. 1.4	Explosive, division 1.4
Ox. Sol. 1	Oxidising solid, category 1
Acute Tox. 4	Acute toxicity, category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H204	Fire or projection hazard.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)

- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.
CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.