



SAFETY DATA SHEET BLUE CRYSTAL ALPHA

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

1.1. Product identifier

Product name BLUE CRYSTAL ALPHA

Product number 11361

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

Identified uses Water Treatment

1.3. Details of the supplier of the safety data sheet

Supplier Univar
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
sds@univar.com
+44 1274 267306

1.4. Emergency telephone number

Emergency Contact Number +44 1274 267346
(Office Hours)

Emergency Contact Number +441865 407333
(Outside Office Hours)

Sds No. 11361

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Classification (67/548/EEC or 1999/45/EC) Xn; R20/22. Xi; R41, R38. N; R50/53

2.2. Label elements

Pictogram



Signal word

Danger

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Hazard statements	H318 Causes serious eye damage. H315 Causes skin irritation. H410 Very toxic to aquatic life with long lasting effects. H302+H332 Harmful if swallowed or if inhaled.
Precautionary statements	P261 Avoid breathing vapour/spray. P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 Call a POISON CENTER/doctor if you feel unwell. P321 Specific treatment (see medical advice on this label). P330 Rinse mouth. P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage. P501 Dispose of contents/container in accordance with national regulations.
Contains	N, N, DIMETHYL-2-HYDROXYPROPYLAMMONIUM CHLORIDE POLYMER, COPPER SULPHATE, BRONOPOL (INN)

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

N, N, DIMETHYL-2-HYDROXYPROPYLAMMONIUM CHLORIDE POLYMER	30-60%
CAS number: 25988-97-0	
M factor (Acute) = 1	M factor (Chronic) = 1
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302	Xn;R22. N;R50/53.
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

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BRONOPOL (INN)	5-10%
CAS number: 52-51-7	EC number: 200-143-0
M factor (Acute) = 10	
Classification Acute Tox. 3 - H301 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335 Aquatic Acute 1 - H400	Classification (67/548/EEC or 1999/45/EC) Xn;R21/22 Xi;R37/38,R41 N;R50
COPPER SULPHATE	5-10%
CAS number: 7758-98-7	EC number: 231-847-6
	REACH registration number: 01-2119520566-40
M factor (Acute) = 10	M factor (Chronic) = 10
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC or 1999/45/EC) Xn;R22 Xi;R36/38 N;R50/53
HYDROCHLORIC ACID ...%	<1%
CAS number: 7647-01-0	EC number: 231-595-7
Classification Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335	Classification (67/548/EEC or 1999/45/EC) C; R34. Xi; R37

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

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Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

General information No specific health hazards known.

Inhalation May cause an asthma-like shortness of breath.

Ingestion May cause discomfort if swallowed.

Skin contact Prolonged skin contact may cause redness and irritation.

Eye contact Irritation of eyes and mucous membranes.

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

Notes for the doctor Eye wash facilities and emergency shower must be available when handling this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards Oxides of the following substances: Carbon.

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

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Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

COPPER SULPHATE

Long-term exposure limit (8-hour TWA): WEL 1 mg/m³

Short-term exposure limit (15-minute): WEL 2 mg/m³

HYDROCHLORIC ACID ...%

Long-term exposure limit (8-hour TWA): WEL 1 2

Short-term exposure limit (15-minute): WEL 5 8

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

BRONOPOL (INN) (CAS: 52-51-7)

Ingredient comments No exposure limits known for ingredient(s).

COPPER SULPHATE (CAS: 7758-98-7)

Ingredient comments WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. EN 166

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Respiratory protection

No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.

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SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Green.
Odour	Slight.
pH	pH (concentrated solution): 1.5 - 2.0
Initial boiling point and range	200°C @
Flash point	100°C CC (Closed cup).
Relative density	1.18 - 2.0 @ 20°C
Solubility(ies)	Soluble in water.
Auto-ignition temperature	360°C

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time. Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Strong acids.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	752.03
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Acute toxicity - dermal

ATE dermal (mg/kg)	11,011.01
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Acute toxicity - inhalation

ATE inhalation (gases ppm)	7,007.01
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ATE inhalation (vapours mg/l)	30.03
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ATE inhalation (dusts/mists mg/l) 5.01

Inhalation Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion Harmful if swallowed.

Skin contact Prolonged and frequent contact may cause redness and irritation.

Eye contact Severe irritation, burning and tearing.

SECTION 12: Ecological Information

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity Very toxic to aquatic organisms.

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility The product is water-soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty. Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

14.2. UN proper shipping name

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Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N Dimethyl-2-hydroxypropylammonium chloride polymer , COPPER SULPHATE)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N Dimethyl-2-hydroxypropylammonium chloride polymer , COPPER SULPHATE)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N Dimethyl-2-hydroxypropylammonium chloride polymer , COPPER SULPHATE)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N,N Dimethyl-2-hydroxypropylammonium chloride polymer , COPPER SULPHATE)

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID subsidiary risk

ADR/RID label 9

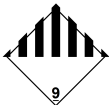
IMDG class 9

IMDG subsidiary risk

ICAO class/division 9

ICAO subsidiary risk

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ICAO packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-A, S-F

Emergency Action Code •3Z

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

SECTION 15: Regulatory information

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). This product may impact SEVESO storage regulations.
Guidance	CHIP for everyone HSG228. Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	02/06/2015
Revision	02
Supersedes date	01/11/2011
SDS number	11361
SDS status	Approved.
Signature	Jitendra Panchal
Risk phrases in full	R20/22 Harmful by inhalation and if swallowed. R21/22 Harmful in contact with skin and if swallowed. R22 Harmful if swallowed. R34 Causes burns. R36/38 Irritating to eyes and skin. R37 Irritating to respiratory system. R37/38 Irritating to respiratory system and skin. R38 Irritating to skin. R41 Risk of serious damage to eyes. R50 Very toxic to aquatic organisms. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Hazard statements in full

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

TURKISH SIGNATURE