



SAFETY DATA SHEET BLUE CRYSTAL OMEGA

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

1.1. Product identifier

Product name BLUE CRYSTAL OMEGA

Product number 11071

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

Identified uses Biocide Flocculating Agent

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. 11071

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 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. N; R50/53

2.2. Label elements

Pictogram



Signal word

Danger

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Hazard statements	H410 Very toxic to aquatic life with long lasting effects. H318 Causes serious eye damage. H302+H332 Harmful if swallowed or if inhaled.
Precautionary statements	P261 Avoid breathing vapour/spray. P273 Avoid release to the environment. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/container in accordance with national regulations.
Contains	N, N, DIMETHYL-2-HYDROXYPROPYLAMMONIUM CHLORIDE POLYMER, BRONOPOL (INN)

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

N, N, DIMETHYL-2-HYDROXYPROPYLAMMONIUM CHLORIDE POLYMER	10-30%
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	
BRONOPOL (INN)	5-10%
CAS number: 52-51-7	
EC number: 200-143-0	
M factor (Acute) = 10	
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 3 - H301	Xn;R21/22 Xi;R37/38,R41 N;R50
Acute Tox. 4 - H312	
Acute Tox. 3 - H331	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	
STOT SE 3 - H335	
Aquatic Acute 1 - H400	
HYDROCHLORIC ACID ...%	<1%
CAS number: 7647-01-0	
EC number: 231-595-7	
Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Corr. 1B - H314	C;R34 Xi;R37
STOT SE 3 - H335	
Eye Dam. 1 - H318	

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

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4.1. Description of first aid measures

Inhalation	Remove affected person from source of contamination. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
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 if any discomfort continues.

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

Inhalation	Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	May cause stomach pain or vomiting.
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

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. Nitrogen.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid 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 Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. 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 Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions Avoid spilling. Avoid contact with skin and eyes. Static electricity and formation of sparks must be prevented. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a well-ventilated place. Protect from freezing and direct sunlight.

Storage class Miscellaneous hazardous material 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

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

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

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

BENZALDEHYDE (CAS: 100-52-7)

DNEL

Industry - Dermal; Long term systemic effects: 34.7 mg/kg/day
 Industry - Dermal; Long term local effects: 4.5 mg/m³
 Industry - Inhalation; Long term systemic effects: 10.4 mg/m³
 Industry - Inhalation; Long term local effects: 6.3 mg/m³
 Consumer - Oral; Long term systemic effects: 25 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 2.1 mg/m³
 Consumer - Dermal; Long term systemic effects: 20.8 mg/kg/day
 Consumer - Dermal; Long term local effects: 2.7 mg/m³
 Consumer - Inhalation; Long term local effects: 1.3 mg/m³

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

The following protection should be worn: Chemical splash goggles.

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 rubber apron. Wear rubber footwear.

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Hygiene measures No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Colourless.
Odour	Amine.
pH	pH (diluted solution): 5.5 -8.0 100g/l
Initial boiling point and range	~ 100°C @
Relative density	1.15 @ °C
Solubility(ies)	Soluble in water.
Viscosity	200 mPa s @ 25°C

9.2. Other information

Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not available.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid Strong alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of the following substances: Carbon. Nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 914.95

Acute toxicity - dermal

ATE dermal (mg/kg) 11,111.11

Acute toxicity - inhalation

ATE inhalation (gases ppm) 7,070.71

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ATE inhalation (vapours mg/l) 30.3

ATE inhalation (dusts/mists mg/l) 5.05

Inhalation May cause respiratory system irritation.

Ingestion Swallowing concentrated chemical may cause severe internal injury. Harmful if swallowed.

Skin contact Liquid may irritate skin.

Eye contact Vapour or spray in the eyes may cause irritation and smarting.

SECTION 12: Ecological Information

Ecotoxicity The product contains substances which are 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.

Acute toxicity - fish LC₅₀, 96 hours: 0.077 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.084 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 0.09 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product contains potentially bioaccumulating substances.

12.4. Mobility in soil

Mobility The product is soluble in water.

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 Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not puncture or incinerate, even when empty.

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

14.1. UN number

UN No. (ADR/RID) 3082

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UN No. (IMDG) 3082

UN No. (ICAO) 3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N, N, Dimethyl-2-Hydroxypropylammonium Chloride Polymer)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N, N, Dimethyl-2-Hydroxypropylammonium Chloride Polymer)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N, N, Dimethyl-2-Hydroxypropylammonium Chloride Polymer)

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N, N, Dimethyl-2-Hydroxypropylammonium Chloride Polymer)

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

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131.

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	28/05/2015
Revision	02
Supersedes date	01/11/2011
SDS number	11071
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. R37 Irritating to respiratory system. R37/38 Irritating to respiratory system and 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.
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