



SAFETY DATA SHEET BACTAKIL

Date of issue 07/01/1997

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

1.1 Product Identifier

Product Form: Mixture
Product Name: BACTAKIL
Product group: Blend

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

Use of substance / mixture: Agricultural Industry

Uses advised against: No additional information available

1.3 Details of the supplier of the safety data sheet

Osmonds, Bradeley Green,
Tarpoley Road, Whitchurch,
Shropshire, SY13 4HD
Telephone: +44 (0)1948 668100
Fax No: +44 (0)1948 668101
Email address: info@osmonds.co.uk

1.4 Emergency Telephone Number

01344 892 011 (UK Only) - National Poisons Information Service

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute Toxicity	Category 4	H302
Serious eye damage/eye irritation	Category 2	H319
Skin corrosion/irritation	Category 2	H315
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

For the full text of the H-statements mentioned in this section, see section 16

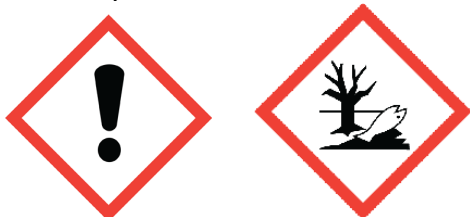
Most important adverse effects

Human Health: See section 11 for toxicological information
Physical and chemical hazards: See section 9 for physiochemical information
Potential environmental effects: See section 12 for environmental information

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard symbols



Signal word: Warning

Hazard Statements:	H302	Harmful if swallowed
	H319	Causes serious eye irritation
	H315	Causes skin irritation
	H410	Very toxic to aquatic life with long lasting effects

Precautionary statements

Prevention	P273	Avoid release into the environment
	P280	Wear protective gloves / protective clothing / eye protection / face protection
Response	P305 + P351 + p338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
	P337 + P313	If eye irritation persists: Get medical advice / attention
	P301 + P312	If SWALLOWED: Call a POISON CENTRE / doctor if you feel unwell
	P302 + P352	If on skin: Wash with plenty of water / soap

2.3 Other hazards

No additional information available

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixture

Name	Product identifier	%	Classification (REGULATION (EC) No 1272/2008)	
			Hazard Class/Hazard Category	Hazard Statements
Copper sulphate pentahydrate	(CAS No) 7758-99-8 (EC No) 231-847-6 (EC Index No) 029-004-00-0	27	Acute Tox.4 Eye Irrit.2 Skin irrit.2 Aquatic Acute.1 Aquatic Chronic.1	H302 H319 H315 H400 H410
Sulphamic Acid	(CAS No) 5329-14-6 (EC No) 226-218-8 EC Index No) 016-026-00-0	13	Eye Irrit.2 Skin irrit.2 Aquatic Acute.3	H319 H315 H412

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice:	Take off all contaminated clothing immediately
If inhaled:	Remove to fresh air. If breathing is laboured, administer oxygen. If symptoms persist, call a physician
In case of skin contact:	After contact with skin, wash immediately with plenty of water, If skin irritation persists, call a physician.
In case of eye contact:	Rinse immediately with plenty of water, also under the eyelids for at least 10 minutes. Consult an eye specialist immediately. Go to and ophthalmic hospital if possible.
If swallowed:	Rinse the mouth and spit the fluids out. Immediately give plenty of water (if possible charcoal slurry). Never give anything by mouth to an unconscious person. Induce vomiting if the person is conscious. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: See Section 11 for more detailed information on health effects and Symptoms.

Effects: See Section 11 for more detailed information on health effects and Symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Water spray. Dry Powder. Foam. Carbon dioxide

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Fire may cause evolution Sulphur oxides

5.3 Advice for firefighters

Protection during firefighting: In the event of a fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protection equipment as required. Avoid contact with skin, eyes and clothing.

6.2 Environmental precautions

Environmental precautions: Do not flush into surface water or sanitary sewer system. If a large spillage occurs and the product directly contaminates rivers and lakes or drains, inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Do not touch spilled material. Absorb in dry sand or earth and place into containers.

6.4 Reference to other sections

See section 8 for information on personal protection equipment
See section 13 for waste treatment information

SECTION 7: HANDLING & STORAGE

7.1 Precautions for safe handling

Advice on safe handling: Keep container tightly closed. Avoid contact with the skin and eyes.

Hygiene measures: Keep away from food, drink and animal feedingstuffs. Do not eat, drink or smoke when using this product. Avoid contact with the skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Store in original container

Advice on protection against fire and explosion Normal measures for preventative fire protection

Further information on storage: conditions Keep container tightly closed when not in use.

Advice on common storage: Keep away from food, drink and animal feedingstuffs.

Incompatible products: Oxidizing agent. Strong acids. Strong bases

7.3 Specific end use(s)

No additional information available

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Component:	copper sulphate pentahydrate	CAS-No. 7758-99-8
Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)		

No DNEL value was derived

Predicted No Effect Concentration (PNEC)	
Fresh water copper sulphate	7.8 µg/l
Marine water copper sulphate	5.2 µg/l
Sewage treatment plant (STP) copper sulphate	230 µg/l
Fresh water sediment copper sulphate	87mg/kg d.w
Marine sediment copper sulphate	676 mg/kg d.w
Soil copper sulphate	65 mg/kg d.w

8.2 Exposure controls

Hand protection:	Protective gloves
Eye protection:	Safety glasses
Skin and body protection:	Wear suitable protective clothing
Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment
Environmental exposure controls:	Do not flush into surface water or sanitary sewer system. If a large spillage occurs and the product directly contaminates rivers and lakes or drains, inform respective authorities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties.

Physical state	: Liquid
Appearance	: Clear blue Liquid
Colour	: Blue
Odour	: Acidic
Odour threshold	: No data available
pH	: 2.0
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available

Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid,gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: 1060 at 20°C
Relative density	: No data available
Density	: No data available
Solubility	: Soluble
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2 Other information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use

10.4 Conditions to avoid

Heat

10.5 Incompatible materials

Oxidizing agents. Strong acids. Strong bases

10.6 Hazardous decomposition products

Sulphur oxides, toxic metal oxide fume

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Component:	copper sulphate pentahydrate	CAS-No. 7758-99-8
Acute toxicity		
Oral		
LD50	450 – 1000mg/kg (Rat)	
Dermal		
LD50	>2000mg/kg (Rabbit)	
Irritation		
Skin		
Result	Irritating to skin	
Eyes		
Result	Irritating to eyes	
Sensitisation		
Result	No sensitizing effect known	
CMR effects		
CMR properties		
Carcinogenicity	It is not considered carcinogenic	
Mutagenicity	In vitro tests did not show mutagenic effects	
	In vivo tests showed mutagenic effects	
Teratogenicity	No data available	
Reproductive toxicity	No data available	
Specific Target Organ Toxicity		
Single exposure		
Remark	The substance or mixture is not classified as specific target organ toxicant, single exposure	
Repeated exposure		
Remark	The substance or mixture is not classified as specific target organ toxicant, single exposure	

SECTION 12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Component:	copper sulphate pentahydrate	CAS-No. 7758-99-8
Acute toxicity		
Fish		
LC50	0.75 – 0.84 mg/l (Oncorhynchus mykiss; 96h; Test substance: copper sulphate)	
Toxicity to daphnia and other aquatic invertebrates		
EC50	0.024 mg/l (Daphnia magna (Ware flea); 48h; Test substance copper sulphate)	
Algae		

EC50	0.1 mg/l (scenedesmus quadricauda; 4h; Test substance; copper sulphate)
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12.2 Persistence and degradability

Component:	copper sulphate pentahydrate	CAS-No. 7758-99-8
Persistence and degradability		
Biodegradability		
Result	The methods for determining biodegradability are not applicable to inorganic substances.	

12.3 Bioaccumulative potential

No additional information available

12.4 Mobility in soil

The product is partly soluble in water

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other adverse effects

Component:	copper sulphate pentahydrate	CAS-No. 7758-99-8
Additional ecological information		
Result	<p>Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>The product should not be allowed to enter drains, water courses or the soil</p> <p>Danger to drinking water if even small quantities leak into the soil.</p>	

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

Contaminated packaging : Empty contaminated packaging thoroughly. They can be recycled

after thorough and proper cleaning. Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product. The waste code is established in consultation with the regional waste disposer.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number

3082

14.2 UN proper shipping name

ADR Environmentally Hazardous Substance, Liquid, N.O.S
(Copper Sulfate pentahydrate) – in solution

RID Environmentally Hazardous Substance, Liquid, N.O.S
(Copper Sulfate pentahydrate) – in solution

IMDG Environmentally Hazardous Substance, Liquid, N.O.S
(Copper Sulfate pentahydrate) – in solution

14.3 Transport hazard classes

ADR

Transport hazard class : 9

Labels; Classification Code; : 9; M6; 90; (E)
Hazard identification No;
Tunnel restriction code

RID

Transport hazard class : 9

Labels; Classification Code; : 9; M6; 90;
Hazard identification No;

IMDG

Transport hazard class : 9

Labels; EmS : 9; F-A, S-F

14.4 Packaging group

ADR : III
 RID : III
 IMDG :III

14.5 Environmental hazards

Environmentally hazardous according to ADR : yes
 Environmentally hazardous according to RID : yes
 Environmentally hazardous according to IMDG-Code : yes

14.6 Special precautions for user

Overland Transport

Classification code (ADR) : M6
 Limited quantities (ADR) : 5L
 Excepted quantities (ADR) : E1
 Packing Instructions (ADR) : P001, IBC03, LP01, R001
 Mixed packing provisions (ADR) : MP19
 Mixed portable tank and bulk container : T4
 Instructions (ADR)
 Mixed portable tank and bulk container : TP1, TP29
 Special provisions (ADR)

14.7 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

Component:	copper sulphate pentahydrate	CAS-No. 7758-99-8
Additional ecological information		
UK, Releases to air and water (UK ISR)	Annual reporting threshold: 10kg	
UK, Releases to air and water (UK ISR)	Annual reporting threshold: 20kg	
UK, Releases to air and water (UK ISR)	Annual reporting threshold: 20kg	
WGK (DE)	WGK2 water endangering 141; Classification source is Annex 2	

Notification status

Copper sulphate pentahydrate

Regulatory List	Notification	Notification number
AICS	YES	
INV (CN)	YES	
ENCS (JP)	YES	(1)-300
ISHL (JP)	YES	(1)-300
IECSC	YES	

15.2 Chemical safety assessment

No data available

16: OTHER INFORMATION

Full text of H Statements referred to under sections 2 and 3

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

The information provided is correct to our knowledge at the date of the revision and is intended to describe the product for the purposes of health, safety and environmental requirements. It should not therefore be construed as guaranteeing any specific property of the product.