

MATERIAL SAFETY DATA SHEET

according to EU Directive 93/112/EC

ANTISULPHATE-SALT NEUTRALISER

Version: HG 3

Print date: 2.11.06

**1. Identification of Substance/Preparation and Company**

Product Name Antisulphate-Salt Neutraliser
Company Biokil Crown Ltd
7 Stadium Ind Park, Long Eaton
Nottingham, NG10 2DD
Telephone 0115 946 0060
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2. Composition / Information on ingredients

Ingredient	Cas Number	Concentrate	Hazard	R. Phase (see section 3)
Sodium Silicate	1344-09-8	40-55%	Xi	38,41

3. Hazards identification

R38- Irritating to skin
R41- Risk of serious damage to eyes

4. First aid measures

Inhalation: Remove from exposure. Keep warm and at rest. If there is respiratory distress give oxygen. If respiration stops or shows signs of failing, apply artificial respiration. Do not use mouth to mouth ventilation. Obtain medical attention urgently.

Skin contact: Remove contaminated clothing. Wash affected area with copious amounts of water until no soapy feeling remains. Obtain medical attention if irritation persists.

Eye contact: Speed is essential - the eye should be thoroughly irrigated for not less than 20 minutes with clean water. This prolonged irrigation is of extreme importance and must be done at once otherwise permanent damage will result. Continue irrigation until medical attention can be obtained.


Ingestion: Wash out mouth with water and give sips of water or milk to drink to soothe the affected parts. Obtain medical attention. Do not induce vomiting.

5. Fire fighting measures

Suitable Extinguisher Media: Compatible with all standard fire fighting techniques. No special procedures required. Select extinguishing medium appropriate to other materials involved in and/or to the circumstances of the fire

Exposure Hazards: Non flammable. Contact with certain metals liberates highly flammable hydrogen gas which may form an explosive mixture with air.

Special Protective Equipment: Non combustible. May generate toxic fumes in a fire therefore fire fighters should wear self contained breathing apparatus and full body protective clothing.

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6. Accidental release measures


Personal Precautions:	Avoid contact with the product. Ventilate the area to dispel airborne concentrations . protective clothing and (under severe conditions) breathing apparatus should be worn when dealing with spillage.
Environmental Precautions:	If size of spillage warrants and has contaminated water courses, drains or vegetation , advise appropriate authorities.
Cleaning up methods:	Small or large spills should be contained with dry sand and transfer solids to polyethylene buckets for neutralisation and disposal. See disposal considerations and environmental precautions. Wash residual liquid to drain with copious amounts of water and possibly detergent. Dispose of waste in accordance with waste disposal and water authority regulations.

7. Handling and storage

Handling:	Exposure by inhalation or skin contact should be minimized by good practice. Wear appropriate protecting clothing (see exposure control). Safety showers and eye baths should be available in areas where accidental exposure is possible. If freezing occurs the solutions may be reconstituted by warming and agitating with not change in properties. The product should be kept in a closed system away from strong acids.
Storage:	Store in a well ventilated area away from incompatible chemicals or materials (see stability and reactivity). Store in closed steel or other suitable vessels which prevent the free circulation of air over the surface of the silicate .If not exposed to the atmosphere solutions will keep indefinitely. Drums must be kept closed when not in use. The product absorbs carbon dioxide on exposure to the atmosphere and may even lose water resulting in gelling of the formulation initially turning cloudy then eventually solidifying. Avoid exposure to low temperatures. Dilute solutions may freeze and ice crystals may separate, rising to the surface. Do not pack in containers which may be attacked or which absorb from the solution (see materials to avoid).

8. Exposure controls / personal protection

Respiratory:	Occupational exposure limits not assigned by HSE (1) or ACG1H (2). Note, Sodium Hydroxide has an exposure standard of 2mg/m (10 minutes TWA) HSE (1). It is recommended that exposure to alkalinity calculated as NaOH should be kept below this limit. In case of mist or spray exposure wear self contained breathing apparatus (see stability and reactivity).
Hand:	Wear impermeable plastic or rubber gloves.
Eye:	Eye protection should be worn. Eye baths should be provided at places where accidental exposure may be possible.
Skin:	Wear impervious boots and polycotton overalls. Where significant exposure if possible, wear impervious body covering . Showers should be provided at where accidental exposure may occur.

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9. Physical and chemical properties

Appearance:	Viscous Aqueous Solution	Boiling Point:	100-101c
Odour:	Odourless	Vapour pressure @ 20c:	as water vapour
pH:	11.6	Evaporation rate (butyl acetate =):	as water
Flash Point	N/A	Flammable limits in air: upper	N/A
		Lower	N/A
Solubility:	Completely soluble in water	Autoignition temperature:	N/A
Flammability:	None		
Specific gravity:	1.2 @ 20c		

10. Stability and reactivity


Material to avoid:	Contact with acids will cause the liquids to gel. Absorbs carbon dioxide from the air. Ignites and maintains combustion in fluorine. Contact with wood will cause discoloration. Solutions will react with new surfaces of aluminium, zinc and their alloys to liberate hazardous decomposition fumes.
Hazardous decomposition products:	contact with aluminium, brass, tin and zinc will produce highly flammable and explosive hydrogen gas.

11. Toxicological information

Inhalation:	Inhalation effects respiration and may cause pulmonary oedema.
Skin contact:	There is little danger of cold solutions causing acute damage to the skin. Prolonged contact may cause dryness and reddening. hot solutions may cause chemical burns.
Eye contact:	Corrosive to eyes and may cause corneal damage
Ingestion:	Ingestion causes systematic dehydration and nausea. Large amount may result in severe abdominal pain, vomiting, diarrhoea, convulsions and collapse.

12. Ecological information

Ecotoxicity:	Increase in pH of 10 or more is lethal to aquatic life. No evidence of bioaccumulation or training of seafood. Practically non-toxic to living resources- 95hr LC50 = 100-1000mg/1.
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13. Disposal considerations

Disposal dangers: Treat as for spillages. Wear appropriate protective clothing (see accidental release measures). Care should be taken to ensure accidental mixing with acids and in drains is avoided. Do not attempt to neutralize with strong acids. Neutralisation generates much heat (see disposal methods)

Disposal methods: Dispose of hazardous waste in accordance with special waste regulations (control pollution act regulations 1980). First neutralise with careful addition of soda ash. Carefully mix and then spray with water and transfer the slurry into large container. Decant off liquid into another container and neutralize to litmus with 6M HCl. Wash to drain with plenty of water. Arrange for removal of containers by a licensed contractors in accordance with waste disposal regulations

14. Transport information

UN NUMBER:	N/A	PACKAGING GROUP:	N/A
ROAD		AIR	
ADR CLASS:	NOT CLASSIFIED	AIR TRANSPORT NUMBER:	
ADR HAZARD NUMBER:		AIR PACK GLP:	
ADR ITEM NUMBER:			
SEA			
IMDG CLASS:	NOT CLASSIFIED		
IMDG PAGE NUMBER:			
MARINE POLLUTANT:			
PROPER SHIPPING NAME:	N/A		

15. Regulatory information

EEC HAZARD CLASSIFICATION:	Irritant.
RISK PHRASES:	R38- Irritating to skin.
	R41- Risk of serious damage to eyes.
SAFETY PHRASES:	S2- Keep out of reach of children.
	S26- in case of contact with eyes, rinse immediately with plenty of Water and seek medical advice.
	S37/39- Wear suitable gloves and eye/face protection.

16. Other Information

TRAINING ADVICE:	Do not use unless trained to do so.
RECOMMENDED USES:	For other uses see products technical data sheet.
DATA RESOURCES:	1. HSE Guidance note EH40 occupational exposure limits.
	2. ACG1H (Threshold limit values and biological exposure indices) 1985-86
	3. Chemicals (hazard information & packaging) regulations 1996.
	4. IMO Reports and studies no. 35 (The evaluation of harmful substances carried by ships) 1989.
	5. IMDG code (International maritime dangerous goods codes) 1995.
	6. Control of substances hazardous to health regulations 1994.
	7. Control of pollution act 1974.
	8. Hazchem list no. 6 (emergency action codes and supplementary information) 1990.