MATERIAL SAFETY DATA SHEET

Emergency phone no. 01708 860075

Product Name: Bromisan

Revision Date:15th June 2009

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Bromisan

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient EINECS	<u>Range (%)</u>	CAS No	<u>Class</u>	<u>Risk No</u>	EC No
 1.3-Dichloro-5,5-dimethyhydantoin Bromochloro-5,5 dimethylhdantoin (BCMH) 1.3-Dichloro-5-Ethyl-5-Methylimid Azolidine-2,4-Dione 	25-50 50-100 10-25	118-52-5 32718-18-6 89415-87-2	Xn,C Xn O,T	22,31,34,43,50 22,31,34,43,50 8,22,23,34,43,30	204-258-7 251-171-5 401-570-7

3. HAZARDS IDENTIFICATION

Inhalation	:Causes burns
Skin Contact	:Causes burns, may sensitise skin
Eye Contact	:Causes burns, possible irreversible damage
Ingestion	:Harmful, causes burns
	:Very toxic to aquatic organisms
General	: Contact with acid liberates toxic gas

4. FIRST AID MEASURES

Inhalation	:	Remove to fresh air. Keep warm, at rest. Seek immediate medical attention
Skin Contact	:	Remove contaminated clothing. Under shower for 15 minutes. Seek immediate medical attention.
Eye Contact	:	Irrigate with running water for 15 minutes. Seek immediate medical attention.
Ingestion	:	DO NOT INDUCE VOMITING. Sip water. Seek immediate medical attention.
Medical Note	:	Bring to immediate medical treatment
		Direct skin or eye contact may produce severe irritation and/or burns and possible irreversible damage.

5. FIRE FIGHTING MEASURES

Extinguishing Media to be used:	Water, dry chemical, foam
Special Fire Fighting Procedures:	Must wear self-contained breathing apparatus and protective clothing
Unusual Fire & Explosive Hazards	: Thermal decomposition may produce toxic fumes of:
	Hydrogen Chloride
	Hydrogen Bromide
	Oxides of Nitrogen

6. ACCIDENTAL RELEASE MEASURES

Transport Emergency ActionStop Engine. Notify Police and Fire Services immediately.
No naked lights. No smoking. Warn other road users.
Keep public away from danger areas. Stay upwind.

Use safety goggles, gloves and dust filter mask

Avoid generating dust or contaminating with combustible material

Carefully shovel spills into appropriate containers for recovery or disposal

Neutralise any residue or wet material with dilute Alkaline Sodium Bisulphate or Sodium Thiosulphate solution

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7. HANDLING AND STORAGE

Keep out of sun and heat. Store in a cool, well-ventilated place. Avoid contact with oxidising material Keep away from combustibles. Keep away from oxidising materials. Avoid deposition of dust.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection:	Where dust or particulates are generated by the process, wear dust filter mask
Protective Gloves:	Wear rubber gloves when handling
Eye Protection:	When handling, wear safety goggles or face shield
Other Protective Eqp:	Wear protective clothing when handling
Industrial Hygiene:	DANGER! Oxidising and corrosive material. Do not get in eyes or on skin.
	Avoid contact with skin, eyes and clothing. Wash oneself immediately and take off contaminated
	clothing. Keep away from foodstuffs. Wash hands at every break of work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off-white briquette
Odour:	Slightly pungent
Melting Point:	120.0-148.0°C
pH Value:	3.60 (10.0 g/l)
Solubility in water:	5.40 g/l (25.0°C)
Flash Point:	142.0°C Cleveland (ASTM D92)

10. STABILITY AND REACTIVITY

 Thermal Decomposition:
 Decomposition approx. 170.0°C

 Stability:
 Stable under normal temperatures and recommended use

 Incompatibility:
 Strong acids

 Bases
 Oxidising materials

 Flammable/ combustible materials

11. TOXICOLOGICAL INFORMATION

Thermal decomposition may produce toxic vapours Otherwise not toxic, but corrosive to human tissues. Rat: Acute oral toxicity (LD_{50}) 441 mg/kg Rabbit: Corrosive to skin

12. ECOLOGICAL INFORMATION

EC50, 48 hrs, Daphnia mg/l Biodegradable >95%, duration 18-42 days, EPA method: Dangerous to water (WGK self classification 2) Fish (LC₅₀) < 1mg/l Rainbow Trout (96 hours) Product is not bioaccumulating. Very toxic to aquatic organisms

13. DISPOSAL CONSIDERATIONS

Use only licensed waste hauliers and disposal contractors, in accordance with Waste Disposal Regulations. In doubt, consult Local Authorities.

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14. TRANSPORT INFORMATION

S.I. Number	3085	
Conveyance Classification: Oxidizer, Oxidizing Solid, corrosive N.O.S. (Brominated Dialhylhydantoine)		
Packaging Group	:III	
ADR Classification	:5.1 +8	
ADR HIN	:58	
IMCO Class	:5.1 + 8 + marine pollutant	
IMCO Sub-Risk	1-	
Hazchem Code	:IW	
Tremcard Number	1-	
IMDG Page Number	:5163 & 5055	
Marine Pollutant	:Yes 'P'	
Air Transport	:5.1/31b	

15. REGULATORY INFORMATION

Primary Risks	:Corrosive (C)
Secondary Risks	:Dangerous for the Environment (N)
Label Risk Phrases	:R22 Harmful if swallowed.
	:R31 Contact with acids liberates toxic gas
	:R34 Causes burns
	:R43 May cause sensitisation by skin contact
	:R50 Very toxic to aquatic organisms
Label Safety Phrases	:S1/2 Keep locked up and out of reach of children.
	:S13 Keep away from food, drink and animal feeding stuffs
	:S20/21 When using do not eat, drink or smoke
	:S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	:S28 After contact with skin wash immediately with plenty of water
	:S36/37/39 Wear suitable protective clothing, gloves and eye/face protection
	:S41 In case of fire and / or explosion, do not breath fumes
	:S45 In case of accident, or if you fell unwell, seek medical advise immediately (show label if possible) :S60 This material and its container must be disposed of as hazardous waste
	:S61 Avoid release to the environment. Refer to special instructions/safety data sheets.
CAS Number	:32718-18-6
EINICS Number	:251-171-5
Customs Tariff	:380890-00-0
UK Customs Number	
EMS Number	
MFAG Number	
CHIP Index Number	:- :-

Recipients of the Material Safety Data Sheet must make their own assessment of workplace risk as required by other Health and Safety legislation.

16. OTHER INFORMATION

Date of issue: 15 June 2009

This Material Safety Data Sheet is distributed solely for the purpose of the Health and Safety at Work Act 1974 and associated regulations. It does not constitute any warranty or guarantee as to the quality, properties, condition or otherwise of the product. It has been prepared from the best knowledge available to us and we shall not be liable for any insufficiency or inaccuracy in such information in any case whatsoever.

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