

TENNANTS DISTRIBUTION LIMITED

NORTHERN DIVISION
HAZELBOTTOM ROAD
CHEETHAM
MANCHESTER
M8 0GR
TEL 44(0)161 205 4454
FAX 44(0)161 203 4298
E-mail sales.manchester@tennantsdistribution.com



SOUTHERN DIVISION
BOTANY WAY
PURFLEET
ESSEX
RM19 1SN
TEL 44 (0)1708 860075
FAX 44 (0)1708 860074

PRODUCT DATA SHEET

(This booklet incorporates the Specification and M.S.D.S.)

PRODUCT	BROMISAN Contains bromochloro-5.5 dimethyl-hydantoin 1,3 dichloro-5.5 dimethyl-hydantoin and 1,3 dichloro-5-ethyl-5 methyl hydantoin		
CAS NO.	MIXTURE		
TARIFF NO.	380890-00-0		
U.N NO.	3085		
EINECS NO.			
IMCO CLASS			
HAZARDS	OXIDISING CORROSIVE DANGEROUS FOR THE ENVIRONMENT		
SPECIFICATION REFERENCE	BR/1	DATE DEC 01	
REFERENCE NO.	BR/2	DATE JUN 08	
PREVIOUS EDITION.	BR/1	DATE DEC 01	

PRODUCT SPECIFICATION

Product Name	Bromisan
Containing	1-bromo-3-chloro-5.5 dimethyl-hydantoin, 1,3 dichloro-5.5 dimethyl-hydantoin, and 1,3 dichloro-5-ethyl-5methyl-hydantoin

SALES SPECIFICATION

Active Bromine %	19.6 min
Active Chlorine %	20.0 min
DMH %	50.0 max
MEH %	5.0 min
Insol, Chloroform %	1.5 max
Volatiles %	0.50 max

NOTES

Exclusion of Liability

Information contained in this publication is accurate to the best of the knowledge and belief of Tennants.

Any information or advice obtained from Tennants otherwise than by means of this publication and whether relating to Tennants materials or other materials, is also given in good faith. However, it remains at all times the responsibility of the customer to ensure that Tennants materials are suitable for the particular purpose intended.

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Health and Safety

A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product:	Bromisan		
COMPANY:	TENNANTS DISTRIBUTION LIMITED		
	Hazelbottom Road	Botany Way	
	Cheetham	Purfleet	
	Manchester	Essex	
	M8 OGR	RM19 1SN	
	Tel No. 44(0)161 205 4454	Tel No. 44(0)1708 860075	
	Fax No. 44(0)161 203 4298	Tel No. 44(0)1708 860074	
Emergency Tel No.	01865 407333		
Email:	msds@tennantsdistribution.com		

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% Conc	CAS No.	Class.	R Phrases
Bromochloro-5, 5-dimethylhydantoin (BCDMH)	50 - 100	126-06-7	Xn	22,31,34,43,50
1,3 Dichloro-5, 5-dimethylhydantoin (DCDMH)	25- 50	118-52-5	Xn	8,22,31,34,43,50
1,3-Dichloro-5-ethyl-5-methylhydantoin (DCEMH)	10- 25	89415-87-2	O	8,22,23,34,43,50

3. HAZARDS IDENTIFICATION

Eye Contact	Causes burns, possible irreversible damage
Skin Contact	Causes burns, may sensitise skin
Ingestion	Harmful, causes burns
Inhalation	Causes burns
Environment	Very toxic to aquatic organisms

4. FIRST AID MEASURES

First Aid – Eyes	Irrigate with running water for at least 15 minutes. Seek medical attention
First Aid – Skin	Remove contaminated clothing. Under shower for 15 minutes. Seek medical attention
First Aid - Ingestion	DO NOT INDUCE VOMITING. Sip water. Seek immediate medical attention
First Aid – Inhalation	Remove to fresh air. Keep warm and at rest. Seek immediate medical attention

5. FIRE FIGHTING MEASURES

Extinguishing Media	Water, dry chemical, foam
Special Hazards of Product	Thermal decomposition may produce toxic fumes of: hydrogen chloride, hydrogen bromide, oxides of nitrogen
Protective Equipment for Fire Fighting	Must wear self contained breathing apparatus and protective clothing

6. ACCIDENTAL RELEASE MEASURES

Transport Emergency Action	Stop engine. Notify police and fire services immediately. No naked flames. No smoking. Warn other road users. Keep public away from danger areas. Stay upwind
General	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

7. HANDLING AND STORAGE

Technical Protection Measures	Keep out of sun and heat. Store in a cool, well ventilated place. Avoid contact with oxidising material
Fire And Explosion Protection	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 this process, wear dust filter mask
Protective Gloves	Wear rubber gloves when handling
Eye Protection	When handling, wear safety goggles or face shield
Other Protective Equipment	Wear protective clothing when handling
Industrial Hygiene	DANGER! Oxidising and corrosive material. Do not get into 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 time

9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	Off white briquette
Odour	Weakly stringent
Melting Point	120.0 – 148.0°C
pH Value	3.60 (10.0 g/l)
Solubility In Water	5.40 g/l (25°C)
Flash Point	142.°C Cleveland (ASTM D92)
10. STABILITY AND REACTIVITY	
Thermal Decomposition	Decomposition approximately 170.0°C
Stability	Stable
Incompatibility With	Strong acids, bases, oxidising materials
11. TOXICOLOGICAL INFORMATION	
Acute Oral Toxicity (LD50)	Rat, 477 mg/kg
Skin Irritation	Rabbit, corrosive
12. ECOLOGICAL INFORMATION	
Fish Toxicity (LC50)	Rainbow trout < 1mg/l 96h
Biological Degradation	>95.0%
Duration	18-42 days EPA
Water Danger/Protection	WGK (self classification) 2. Dangerous to water
13. DISPOSAL CONSIDERATIONS	
Product Disposal	Dispose of in compliance with all federal, state and local laws and regulations. Incineration is the preferred method
14. TRANSPORT INFORMATION	
UN Number	3085
Proper Shipping Name	Oxidiser, Oxidising Solid, N.O.S. (Brominated Dialhyhydantoine)
Packaging Group	III
ADR Classification	5.1 + 8
ADR HIN	58
IMCO Class	5.1 + 8 + Marine P ollutant
Hazchem Class	IW
IMDG Page Number	5163 & 5055
Marine Pollutant	Yes 'P'
Air Transport	5.1/31b
15. REGULATORY INFORMATION	
Labelling Information	O Oxidising C Corrosive N Dangerous for the environment
R phrases	R8 Contact with combustible material may cause fire R22 Harmful if swallowed R31 Contact with acids liberates toxic gases R34 Causes burns R43 May cause sensitisation by skin contact R50 Very toxic to aquatic organisms
S phrases	S1/2 Keep locked up and out of reach of children S25 Avoid contact with eyes 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 breathe fumes S45 In case of accident, or if you feel unwell, seek medical advice immediately (show the label where possible) S60 This material and its contents must be disposed of as hazardous waste S61 Avoid release to environment
CAS No.	MIXTURE
Customs Tariff	380890-00-0
16. OTHER INFORMATION	
The Safety Data Sheets have been revised throughout. The Specification remains the same	
Revision Date: 04/06/08	