

SAFETY DATA SHEET

1,3-DIBROMO-5,5-DIMETHYL HYDANTOIN

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

1.1 Product identifier:	
CAS Number:	77-48-5
EC number:	201-030-9
1.2 SYNONYMS:	<ul style="list-style-type: none"> • 1,3-Dibromo-5,5-dimethylimidazolidine-2,4-dione • DBDH • Dibromantin

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	<p>Labelling according to Regulation (EC) No 1272/2008</p> <p>Oxidizing solids, (Category 3)</p> <p>Acute toxicity, oral (Category 3)</p> <p>Skin corrosion, (Category 1B)</p> <p>Serious eye damage, (Category 1)</p> <p>Skin sensitisation, (Category 1)</p> <p>Short-term (acute) aquatic hazard, (Category 1)</p> <p>Long-term (chronic) aquatic hazard, (Category 1)</p>
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	<p>H272: May intensify fire; oxidizer.</p> <p>H301: Toxic if swallowed.</p> <p>H314: Causes severe skin burns and eye damage.</p> <p>H317: May cause an allergic skin reaction.</p> <p>H410: Very toxic to aquatic life with long lasting effects.</p>
Precautionary Statements:	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

	<p>smoking.</p> <p>P260: Do not breathe dust.</p> <p>P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.</p> <p>P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P405: Store locked up.</p> <p>P501: Dispose of contents/ container to an approved waste disposal plant.</p>
2.3 Other hazards:	
Inhalation:	can cause respiratory irritation, coughing, shortness of breath, and throat discomfort.
Ingestion:	can cause nausea, vomiting, abdominal pain, and potential damage to the gastrointestinal tract.
Skin Contact:	can cause irritation, redness, and possible chemical burns.
Eye contact:	can cause severe irritation, redness, pain, and potential damage to the eyes.
Chronic Exposure:	may cause prolonged skin and respiratory irritation, sensitization, and potential effects on the liver or kidneys with repeated or long-term contact.

Aggravation of pre-existing conditions:	can aggravate pre-existing respiratory conditions (like asthma), skin disorders, or eye problems.
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SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 77-48-5 1,3-DIBROMO-5,5-DIMETHYL HYDANTOIN
Identification number(s):	EC number: 201-030-9

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact:	Remove contaminated clothing immediately. Wash with plenty of water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	The most important symptoms and effects include acute respiratory, skin, and eye irritation, nausea or vomiting if ingested, and delayed effects such as sensitization or organ damage from prolonged exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Water, carbon dioxide dry powder.
5.2 Special hazards arising from the substance or mixture:	Carbon oxides, nitrogen oxides, hydrogen bromide gas.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces.
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	Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer

	surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Crystalline solid
Colour:	White
Odour:	Slight bromine-like
pH-value:	Not determined
Melting point/Melting range:	180°C
Boiling point/Boiling range:	Not determined
Flammability (solid, gaseous):	Non- Flammable
Ignition temperature:	Not determined
Decomposition temperature:	180°C
Self-igniting:	None
Flash point:	Not determined
Danger of explosion:	None
Explosion limits: Lower:	Not applicable
Explosion limits: Upper:	Not applicable
Vapour pressure:	Not determined
Density at 20 °C:	2.1 g/cm ³
Relative density:	2.1
Vapour density:	Not applicable
Evaporation rate:	Not determined
Solubility in / Miscibility with- water at 20 °C:	slightly Soluble
Partition coefficient:(n- octanol/water)	1.0
Viscosity:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
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10.2 Chemical stability	This chemical is stable under storage conditions.
10.3 Possibility of hazardous reactions	Can react with strong reducing agents to release bromine gas.
10.4 Conditions to avoid	Excessive heat, direct sunlight, flames.
10.5 Incompatible materials	Strong reducing agents, strong acids and bases.
10.6 Hazardous decomposition products	Carbon oxides, hydrogen bromide gas.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat): no data available LD50 (Dermal, Rabbit): no data available LC50 (Inhalation Rat): no data available
Skin corrosion/Irritation:	Causes serious burns
Serious eye damage/irritation:	Causes serious eye damage
Respiratory damage/irritation:	No data available
Ingestion:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	No data available
Biodegradability:	Moderately biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50(fish): no data available EC50(daphnia): no data available ErC50(algae): no data available
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12.2 Persistence and degradability:	Moderately biodegradable
12.3 Bioaccumulative potential:	Low bioaccumulative
12.4 Mobility in soil:	Moderate mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Soap and Water, detergents, sodium thiosulfate solution.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	3087
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	1,3-DIBROMO-5,5-DIMETHYL HYDANTOIN
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	5.1 (6.1)
14.4 Packing group · ADR, IMDG, IATA:	2
14.5 Environmental hazards:	None
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified in listed substances as oxidizing solid and environmental hazard.
Named dangerous substances:	This substance is not listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of

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