

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 15-Dec-2021

Revision Number 1

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

1.1. Product identifier	
Product Code(s)	DRE-C10804000
Product Name	Bronidox
NOTE [5] - This substance is of REACH	s exempted from registration according to the provisions of Article 2(7)(a) and Annex V
EC No	250-001-7
CAS No	30007-47-7
Chemical name	5-bromo-5-nitro-1,3-dioxane
Pure substance/mixture	Substance
Formula	C4H6BrNO4
Molecular weight	212.02
1.2. Relevant identified uses of th	e substance or mixture and uses advised against
Recommended use	Laboratory use
Uses advised against	No information available
1.3. Details of the supplier of the	safety data sheet
Supplier	
LGC Limited Queens Road Teddington Middlesex TW11 0LY UNITED KINGDOM :+44 (0) 20 8943 7000 Fax :+44 (0) 20 8943 2767 eMail : gb@lgcstandards.com Web : www.lgcstandards.com For further information, please conta	act_
E-mail address	sds-request@lgcgroup.com



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#### 1.4. Emergency telephone number

**Emergency Telephone** 

For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire Exposure, or Accident Call CHEMTREC: USA & Canada 1-800-424-9300 Rest of the world +1 703-741-5970

Emergency Telephone - §45 - (EC)1272/2008				
Europe	112			
Austria	No information available			
Bulgaria				
Croatia				
Cyprus				
Czech Republic				
Denmark				
France				
Hungary				
Ireland				
Italy				
Lithuania				
Luxembourg	(+352) 8002 5500 Free telephone number with a 24/7 access in French, Dutch and English.			
Netherlands				
Norway				
Portugal				
Romania				
Slovakia				
Slovenia				
Spain				
Sweden				
Switzerland				

# **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008	
Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity — repeated exposure	Category 2 - (H373)

#### 2.2. Label elements

250-001-7

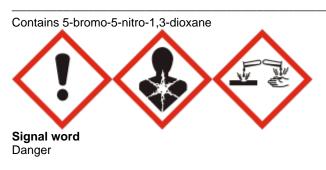


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## Hazard statements

H302 - Harmful if swallowed H314 - Causes severe skin burns and eye damage

H373 - May cause damage to organs through prolonged or repeated exposure

#### Precautionary Statements - EU (§28, 1272/2008)

P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P280 - Wear protective gloves/protective clothing and eye/face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor
P331 - Do NOT induce vomiting

#### 2.3. Other hazards

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

#### **Endocrine Disruptor Information**

Chemical name	EU - REACH (1907/2006) - Article 59(1)	EU - REACH (1907/2006) - Endocrine
	- Candidate List of Substances of Very	Disruptor Assessment List of
	High Concern (SVHC) for Authorisation	Substances
5-bromo-5-nitro-1,3-dioxane	-	-

# SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Chemical name	Weight-%	REACH registration number	EC No	Classification according to	Specific concentration	M-Factor	M-Factor (long-term)
				Regulation (EC) No. 1272/2008 [CLP]	limit (SCL)		



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5-bromo-5-nitro-1,3- dioxane 30007-47-7	100	-	250-001-7	Acute Tox. 4 (H302) Skin Corr. 1A (H314) Eye Dam. 1 (H318)		
				STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		

### Full text of H- and EUH-phrases: see section 16

#### Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
	mg/kg	mg/kg	hour - dust/mist - mg/L	hour - vapour - mg/L	hour - gas - ppm
5-bromo-5-nitro-1,3-dioxa	455	No data available	No data available	No data available	No data available
ne 30007-47-7					

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures			
4.1. Description of first aid	d measures		
General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.		
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.		
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.		
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated		



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	clothes and shoes. Get immediate medical advice/attention.			
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.			
Self-protection of the first aider	protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions t protect themselves and prevent spread of contamination. Avoid contact with skin, eyes clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation Wear personal protective clothing (see section 8).			
4.2. Most important symptoms and	effects, both acute and delayed			
Symptoms	Burning sensation.			
4.3. Indication of any immediate medical attention and special treatment needed				
Note to doctors Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or esophagus should be investigated. Do not give chem antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure occur with moist rales, frothy sputum, and high pulse pressure.				

<b>SECTION 5:</b>	Firefighting	measures
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5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.			
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.			
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.			
5.2. Special hazards arising from th	e substance or mixture			
Specific hazards arising from the chemicalThe product causes burns of eyes, skin and mucous membranes. Thermal decompose can lead to release of irritating gases and vapours.				
5.3. Advice for firefighters				
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.			

## **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate



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ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Other information Refer to protective measures listed in Sections 7 and 8. Use personal protection recommended in Section 8. For emergency responders 6.2. Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the **Environmental precautions** environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains. 6.3. Methods and material for containment and cleaning up Methods for containment Prevent further leakage or spillage if safe to do so. Take up mechanically, placing in appropriate containers for disposal. Methods for cleaning up Clean contaminated objects and areas thoroughly observing environmental regulations. Prevention of secondary hazards 6.4. Reference to other sections **Reference to other sections** See section 8 for more information. See section 13 for more information.

# SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

Advice on safe handlingHandle in accordance with good industrial hygiene and safety practice. Avoid contact with<br/>skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory<br/>equipment. Handle product only in closed system or provide appropriate exhaust<br/>ventilation. Do not eat, drink or smoke when using this product. Take off contaminated<br/>clothing and wash it before reuse.General hygiene considerationsRemove and wash contaminated clothing and gloves, including the inside, before re-use.<br/>Contaminated work clothing should not be allowed out of the workplace. Regular cleaning<br/>of equipment, work area and clothing is recommended. Wash hands before breaks and<br/>immediately after handling the product. Avoid contact with skin, eyes or clothing. Do not<br/>eat, drink or smoke when using this product. Wash hands before breaks and after work.<br/>Wear suitable gloves and eye/face protection.7.2. Conditions for safe storage, including any incompatibilities

Storage ConditionsKeep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach<br/>of children. Protect from moisture. Store locked up. Store away from other materials. Please<br/>refer to the manufacturer's certificate for specific storage and transport temperature<br/>conditions. Store only in the original receptacle unless other advice is given on the CoA.



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7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### **Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL)No information available.Predicted No Effect ConcentrationNo information available.(PNEC)No

8.2. Exposure controls

Personal protective equipment

Eye/face protectionTight sealing safety goggles. Face protection shield. Avoid contact with eyes. Wear safety<br/>glasses with side shields (or goggles).

Hand protectionWear suitable gloves. Impervious gloves. The protective gloves to be used must comply<br/>with the specifications of EC Directive 89/686/EEC and the related standard EN374.

Gloves					
Duration of contact	PPE - Glove material	Glove thickness	Break through time		
	Wear protective butyl				
	rubber gloves				
Skin and body protection	Long sleeved clothing. Chemical resistant apron. Wear suitable protective clothing.				
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.				



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General hygiene considerations	Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

# **SECTION 9: Physical and chemical properties**

Physical state	Solid	
Appearance	Crystalline	
Colour	off-white	
Odour	No information available.	
Odour threshold	No information available	
Property	Values	Remarks • Method
Melting point / freezing point	59 °C	None known
Boiling point / boiling range	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	No information available
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	4.77 g/L	None known
Solubility(ies)	No data available	None known
Partition coefficient	1.6	None known
Vapour pressure	0.016 hPa	None known
Relative density	1.968	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

## 9.1. Information on basic physical and chemical properties

9.2. Other information



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Molecular weight	212.02
Molecular formula	C4H6BrNO4

9.2.1. Information with regards to physical hazard classes Not applicable

9.2.2. Other safety characteristics No information available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Reactivity

No information available.

10.2. Chemical stability

Stability

Stable under normal conditions.

- Explosion data Sensitivity to mechanical impact None. Sensitivity to static discharge None.
- 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

**Conditions to avoid** Exposure to air or moisture over prolonged periods.

10.5. Incompatible materials

Incompatible materials Acids. Bases. Oxidising agent.

Hazardous decomposition products None known based on information supplied.

## **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Information on likely routes of exposure

#### **Product Information**

Inhalation

Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking,



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	headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.	
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.	
Skin contact	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.	
Ingestion	Specific test data for the substance or mixture is not available. (based on components). Causes burns. Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.	
Symptoms related to the physical, chemical and toxicological characteristics		
Symptoms	Redness. Burning. May cause blindness. Coughing and/ or wheezing.	
Numerical measures of toxicity		

## Acute toxicity

## **Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
5-bromo-5-nitro-1,3-dioxane	= 455 mg/kg (Rat)		

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Causes burns.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.
Respiratory or skin sensitisation	No information available.



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Germ cell mutagenicity	No information available.	
Carcinogenicity	No information available.	
Reproductive toxicity	No information available.	
STOT - single exposure	No information available.	
STOT - repeated exposure	May cause damage to org	ans through prolonged or repeated exposure.
Aspiration hazard	No information available.	
11.2. Information on other hazards	_	
11.2.1. Endocrine disrupting prope	rties	
Endocrine disrupting properties	No information available.	
11.2.2. Other information		
Other adverse effects	No information available.	
SECTION 12: Ecological information		
<u>12.1. Toxicity</u>		
Ecotoxicity	The environmental impact	of this product has not been fully investigated.
12.2. Persistence and degradability	_	
Persistence and degradability	No information available.	
12.3. Bioaccumulative potential		
Bioaccumulation	There is no data for this p	roduct.
Component Information		
Chemical nar	ne	Partition coefficient



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12.4. Mobility in soil

Mobility in soil No information available.

#### 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product cont

The product contains substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
5-bromo-5-nitro-1,3-dioxane	The substance is not PBT / vPvB

## 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

# **SECTION 14: Transport information**

IATA 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es) 14.4 Packing group Description 14.5 Environmental hazards 14.6 Special precautions for user Special Provisions ERG Code	UN3261 Corrosive solid, acidic, organic, n.o.s. (5-bromo-5-nitro-1,3-dioxane) 8 II UN3261, Corrosive solid, acidic, organic, n.o.s. (5-bromo-5-nitro-1,3-dioxane), 8, II Not applicable A3, A803 8L
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IMDG



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<ul> <li>14.1 UN number or ID number</li> <li>14.2 UN proper shipping name</li> <li>14.3 Transport hazard class(es)</li> <li>14.4 Packing group Description</li> <li>14.5 Marine pollutant</li> <li>14.6 Special precautions for user Special Provisions EmS-No</li> <li>14.7 Maritime transport in bulk according to IMO instruments</li> </ul>	UN3261 Corrosive solid, acidic, organic, n.o.s. (5-bromo-5-nitro-1,3-dioxane) 8 II UN3261, Corrosive solid, acidic, organic, n.o.s. (5-bromo-5-nitro-1,3-dioxane), 8, II NP 274 F-A, S-B No information available No information available
<u>RID</u> 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es) 14.4 Packing group Description 14.5 Environmental hazards 14.6 Special precautions for user Special Provisions Classification code	UN3261 Corrosive solid, acidic, organic, n.o.s. (5-bromo-5-nitro-1,3-dioxane) 8 II UN3261, Corrosive solid, acidic, organic, n.o.s. (5-bromo-5-nitro-1,3-dioxane), 8, II Not applicable 274 C4
ADR 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es) 14.4 Packing group Description 14.5 Environmental hazards 14.6 Special precautions for user Special Provisions Classification code Tunnel restriction code	UN3261 Corrosive solid, acidic, organic, n.o.s. (5-bromo-5-nitro-1,3-dioxane) 8 II UN3261, Corrosive solid, acidic, organic, n.o.s. (5-bromo-5-nitro-1,3-dioxane), 8, II, (E) Not applicable 274 C4 (E)

# SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Water hazard class (WGK) strongly haza

strongly hazardous to water (WGK 3)

### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.



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#### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors** Not applicable

# Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

International Inventories	
TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

- **IECSC** China Inventory of Existing Chemical Substances
- **KECL** Korean Existing and Evaluated Chemical Substances
- **PICCS** Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

### 15.2. Chemical safety assessment

Chemical Safety Report

A Chemical Safety Assessment has been carried out for this substance

# **SECTION 16: Other information**



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Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H373 - May cause damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

#### Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Skin corrosion/irritation	Calculation method
Acute oral toxicity	Calculation method
Serious eye damage/eye irritation	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Respiratory sensitisation	Calculation method
Skin corrosion/irritation	Calculation method
Skin sensitisation	Calculation method
Serious eye damage/eye irritation	Calculation method
Mutagenicity	Calculation method
Respiratory sensitisation	Calculation method
Carcinogenicity	Calculation method
Skin sensitisation	Calculation method
Reproductive toxicity	Calculation method
Mutagenicity	Calculation method
STOT - single exposure	Calculation method
Carcinogenicity	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Reproductive toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
STOT - single exposure	Calculation method
Aspiration hazard	Calculation method



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STOT - repeated exposure	Calculation method
Ozone	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme Organisation for Economic Co-operation and Development Screening Information Data Set World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 Disclaimer

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

**End of Safety Data Sheet**