SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supercedes date 13-Feb-2023 **Revision date** 29-Oct-2024 **Revision Number** 4.01

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

1.1. Product identifier

Product Code(s)	20316
Safety data sheet number	20316
Product Name	SODIUM BENZOATE
EC Number	208-534-8
CAS No	532-32-1
Synonyms	SODIUM BENZOIC ACID, BENZOIC ACID SODIUM SALT, BENZOATE OF SODIUM, ANTIMOL, PROBENZ SG, PROBENZ SP MICRONIZED, SODIUM BENZOIC ACID (C) PELLETS, NATRIUMBENZOAT (D) PELLETS, SOD BENZOATE E211 PLT WH, PALMAROLE MI.NA.08, PUROX S, SOD BENZOATE (PUROX S), BENZOATE SOD REGULAR, KALAGUARD SB, SOD BENZOATE DENSE NF/FCC, PROBENZ SP FG, SOD BENZOATE E211 PRILLS WH, KALAMA SOD BENZOATE NF/FCC, TEQGUARD SB***
Pure substance/mixture	Substance
Molecular weight	144.11

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use	Additive Antioxidant Biocide Cosmetics Food industry Pharmaceuticals Polymerisation Initiator Preservative For further information, see attached Exposure Scenario

1.3. Details of the supplier of the safety data sheet

Supplier
Unit 3B, Arbour Ct
Arbour Lane
Liverpool
L33 7XE
United Kingdom

For further information, please contact

E-mail address	sales@fluidscienceltd.com
Non-Emergency Telephone Number	01244 506 860

1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 2 - (H319)

2.2. Label elements

Signal word
Warning

Hazard statements
H319 - Causes serious eye irritation

Precautionary statements
P264 - Wash skin thoroughly after handling
P280 - Wear eye protection/ face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
SODIUM BENZOATE 532-32-1	>=90 - <=100%	208-534-8	-	Eye Irrit. 2 (H319)	-	-	-

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

This product does not contain candidate substances of very high concern at a concentration >= 0.1% (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Causes serious eye irritation.
Eyes	Causes serious eye irritation.***

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical, CO2, alcohol-resistant foam or water spray.***
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Carbon dioxide (CO2). Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Thermal decomposition can lead to release of irritating and toxic gases and vapours.
Hazardous combustion products	Carbon monoxide. Carbon dioxide (CO2). Metal oxides.

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. Collect contaminated fire extinguishing water separately. Do not allow it to enter drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Remove all sources of ignition. Avoid generation of dust. Ensure adequate ventilation. Avoid breathing dust. Use personal protection recommended in Section 8.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Do not allow runoff to sewer, waterway or ground. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for containment Contain spill and move containers from spill area. Avoid handling which leads to dust formation. Vacuum or sweep up material and place in a designated, labelled waste container. Use approved industrial vacuum cleaner for removal. Dispose of wastes in an approved waste disposal facility.

Methods for cleaning up After cleaning, flush away traces with water.

Prevention of secondary hazards Observe good chemical hygiene practices.

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 handling Use personal protection recommended in Section 8. Avoid generation of dust. Keep away from heat, sparks and open flame. Avoid inhalation, ingestion and contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Keep only in original container. Take precautionary measures against static discharge. Empty containers retain product residue and can be hazardous. Do not re-use container.

General hygiene considerations Wash hands before breaks and after work. Remove contaminated clothing and protective equipment before entering eating areas. Ensure that eyewash stations and safety showers are close to the workstation location.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Hygroscopic. Protect from moisture. Keep/store only in original container. Protect from direct sunlight. Keep away from heat, sparks and open flame. Store away from incompatible materials. Strong acids. Strong oxidising agents. Iron. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

7.3. Specific end use(s)

Specific use(s)
See section 1 for more information.

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) - Workers

Chemical name	Oral	Dermal	Inhalation
SODIUM BENZOATE 532-32-1		62.5 mg/kg bw/day [4] [6]	3 mg/m³ [4] [6] 0.1 mg/m³ [5] [6]

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
SODIUM BENZOATE 532-32-1	16.6 mg/kg bw/day [4] [6]	31.25 mg/kg bw/day [4] [6]	1.5 mg/m³ [4] [6] 0.06 mg/m³ [5] [6]

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
SODIUM BENZOATE 532-32-1	0.13 mg/L	0.305 mg/l	0.013 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
SODIUM BENZOATE 532-32-1	1.76 mg/kg sediment dw	0.176 mg/kg sediment dw	10 mg/L	0.06 mg/kg soil dw	300 mg/kg food

8.2. Exposure controls

Engineering controls Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generated. Use engineering controls to keep exposures below the OEL or DNEL.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Butyl rubber		>= 8 hours
Long term (repeated)	Nitrile rubber		>= 8 hours
Long term (repeated)	Fluorinated rubber		>= 8 hours
Long term (repeated)	Polyvinyl chloride (PVC)		>= 8 hours
Long term (repeated)	Viton™		>= 8 hours

Skin and body protection Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection In case of inadequate ventilation wear respiratory protection.
Recommended filter type: P1.

General hygiene considerations Wash hands before breaks and after work. Remove contaminated clothing and protective equipment before entering eating areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls Avoid release to the environment. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	granules
Colour	white
Odour	Odourless.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	436 °C	OECD 102.
Initial boiling point and boiling range	465 °C	Decomposes prior to boiling.
Flammability		The product is not flammable., May form combustible dust concentrations in air.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point		Not applicable.
Autoignition temperature		No information available.
Decomposition temperature	450 - 475 °C	***
pH		No information available.
pH (as aqueous solution)	8	solution (10 %).
Kinematic viscosity		No information available.
Dynamic viscosity		No information available.
Water solubility	Soluble in water*** 556 g/l	@ 20 °C.
Solubility(ies)		No information available.
Partition coefficient	log Kow: 1.88	Read-across.
Vapour pressure		negligible.
Relative density	1.44 - 1.50	@ 20 °C.
Bulk density		No information available
Liquid Density	No information available	No information available
Relative vapour density		No information available.
Particle characteristics		No information available.
Particle Size	> 500 µm	
Particle Size Distribution	No information available	
Explosive properties	No information available	
Oxidising properties	None, Does not meet the criteria for classification as oxidising On basis of test data	

9.2. Other information

Molecular weight 144.11

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No reactive hazards known/expected.

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 Avoid generation of dust. Avoid static discharge. Protect from moisture. Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong oxidising agents. Iron.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation May cause irritation.***

Eye contact Causes serious eye irritation.

Skin contact May cause slight irritation.***

Ingestion Gastrointestinal discomfort.***

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Causes serious eye irritation.

Acute toxicity

Numerical measures of toxicity
Based on available data, the classification criteria are not met

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
SODIUM BENZOATE	>2000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	>12.2 mg/l (Rat) 4h

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

Skin corrosion/irritation Based on available data the classification criteria are not met.

SODIUM BENZOATE (532-32-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD 404	Rabbit	Dermal			non-irritant

Serious eye damage/eye irritation Causes serious eye irritation.

SODIUM BENZOATE (532-32-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD 405	Rabbit	eye			Causes serious eye irritation

Respiratory or skin sensitisation Based on available data the classification criteria are not met.

SODIUM BENZOATE (532-32-1)

Method	Species	Exposure route	Results
OECD 429	Mouse	Dermal	Did not cause sensitisation on laboratory animals Test results on an analogous product

Germ cell mutagenicity Based on available data the classification criteria are not met.

Component Information
SODIUM BENZOATE (532-32-1)

Method	Species	Results
Ames Test OECD Test No. 471: Bacterial Reverse Mutation Test	S. typhimurium	Negative
Ames Test OECD Test No. 471: Bacterial Reverse Mutation Test	Escherichia coli	Negative
OECD Test No. 473: In vitro Mammalian Chromosome Aberration Test	Chinese hamster cells	Positive
OECD 479 sister chromatid exchange assay	Human lymphocytes	Positive
OECD 487: In Vitro Mammalian Cell Micronucleus Test	Human lymphocytes	Positive
OECD Test No. 475: Mammalian Bone Marrow Chromosome Aberration Test	Rat	Negative
OECD Test No. 478: Rodent Dominant Lethal Test	Rat	Negative

Carcinogenicity Based on available data the classification criteria are not met.

Component Information
SODIUM BENZOATE (532-32-1)

Method	Species	Results
	Rat	Did not cause cancer in laboratory animals. NOAEL >= 20,000 ppm

Reproductive toxicity Based on available data the classification criteria are not met.

SODIUM BENZOATE (532-32-1)

Method	Species	Results
OECD Test No. 416: Two-Generation Reproduction Toxicity	Rat	No effects on fertility and early embryonic development were detected NOAEL >= 10,000 ppm
OECD Test No. 414: Pre-natal Development Toxicity Study	Rat	General Toxicity Maternal: NOAEL = 1.306 mg/kg bw/day
OECD Test No. 414: Pre-natal Development Toxicity Study	Rat	Developmental Toxicity: NOAEL = 1.306 mg/kg bw/day

Developmental toxicity Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses.

Teratogenicity Did not show teratogenic effects in animal experiments.

STOT - single exposure Based on available data the classification criteria are not met.

STOT - repeated exposure Based on available data the classification criteria are not met.

Component Information
SODIUM BENZOATE (532-32-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
Chronic toxicity	Rat	Oral	10,000 - 20,000 ppm, 7 days/week	18 - 24 months	NOAEL >= 20,000 ppm
OECD Test No. 412: Sub-acute Inhalation Toxicity: 28-Day Study	Rat	Inhalation Dust/Mist	25; 250; 1200 mg/m^3 6h/d, 5 days/week	4 weeks	NOAEC =250 mg/m^3 Systemic Toxicity Test results on an analogous product
OECD Test No. 412: Sub-acute Inhalation Toxicity: 28-Day Study	Rat	Inhalation Dust/Mist	25; 250; 1200 mg/m^3, 6h/d, 5 days/week	4 weeks	LOAEC =25 mg/m^3 respiratory tract Test results on an analogous product
Subacute Toxicity	Rabbit	Dermal	100; 500; 2500, mg/kg bw/day, 5h/d, 5 days/week	3 weeks	NOAEL >2500 mg/kg Test results on an analogous product

Aspiration hazard Based on available data, the classification criteria are not met.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Based on available data, the classification criteria are not met.

SODIUM BENZOATE (532-32-1)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
EPA OPP 72-1	Pimephales promelas	LC50	484 mg/L	96 hours	
	Daphnia magna	EC50	> 100 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	> 30.5 mg/L	72 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	EC10	6.5 mg/L	72 hours	
Chronic toxicity	Danio rerio	NOEC	10 mg/L	6 days	

12.2. Persistence and degradability

Persistence and degradability Readily biodegradable.

SODIUM BENZOATE (532-32-1)

Method	Exposure time	Value	Results
OECD Test No. 301B: Ready Biodegradability: CO2 Evolution Test (TG 301 B) or Equivalent.	28 days	85 - 94 % Biodegradation	Readily biodegradable
OECD 311 Anaerobic	60 days	50 - 97% Biodegradation	Rapidly biodegradable

12.3. Bioaccumulative potential

Bioaccumulation Not likely to bioaccumulate.

Component Information

Chemical name	Partition coefficient
SODIUM BENZOATE	1.88

12.4. Mobility in soil

Mobility in soil Soluble in water.***

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
SODIUM BENZOATE	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Contaminated packaging Do not reuse empty containers. Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

IATA

14.1 UN number or ID number Not regulated
14.2
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

IMDG

14.1 UN number or ID number Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

National regulations

Authorisations and/or restrictions on use:
This product contains one or more substances subject to restriction (UK REACH - Annex XVII).
This product does not contain substances subject to authorisation (UK REACH - Annex XIV).
Product restricted per REACH Annex XVII: 3

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
SODIUM BENZOATE - 532-32-1	75	-

Persistent Organic Pollutants
Not applicable

Export Notification requirements
Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)
Not applicable

The Ozone-Depleting Substances Regulations 2015
Not applicable

The Biocidal Products Regulations 2001 (as amended)

Chemical name	The Biocidal Products Regulations 2001 (as amended)
SODIUM BENZOATE - 532-32-1	Simplified procedure - Category A

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)
Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)
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
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	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
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment has been carried out for this substance

SECTION 16: Other information

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

Full text of H-Statements referred to under section 3
H319 - Causes serious eye irritation

Legend
SVHC: Substances of Very High Concern for Authorisation:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

Legend Section 8: Exposure controls/personal protection

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

Revision Note SDS sections updated 1 2 3 4 5 6 7 8 9 10 11 12 13 15 16

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	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
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	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)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
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)
National Institute of Technology and Evaluation (NITE)
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)
U.S. 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

Supercedes date	13-Feb-2023
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This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
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

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet