



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

Revision date: 28-09-2026

Revision Number: 1.01

1. Identification

Product identifier

Product Name 5171-A Black Epoxy Base

Other means of identification

Product Code FO20052225

Material number(s) FO20052225PW

UN number or ID number UN3082

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use For industrial use only

Restrictions on use None.

Details of the supplier of the safety data sheet

Supplier Address

Avient Corporation
33587 Walker Road, Avon Lake, OH 44012

E-mail address regulatoryservices@avient.com

Emergency telephone number

Company Phone Number 1 (440) 930-1000
or 1 (844) 4 AVIENT

24 Hour Emergency Phone Number CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident)

Emergency Telephone No information available

2. Hazard(s) identification

Classification of the substance or mixture

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Reproductive toxicity	Category 1B

Hazards not otherwise classified (HNOC)

Not applicable.

Label elements



Danger

Hazard statements

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing genetic defects.
May damage fertility or the unborn child.

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling.
Avoid breathing dust, fume, gas, mist, vapors and spray.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label).
IF exposed or concerned: Get medical advice and attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice and attention.
If skin irritation occurs: Get medical advice and attention.
Take off contaminated clothing and wash it before reuse.
IF ON SKIN: Wash with plenty of water and soap.
If skin irritation or rash occurs: Get medical advice and attention.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable.

Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available.

Other information

Toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients**Substance**

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Trade secret / Unique identifier
Bisphenol A-epichlorohydrin polymer	25068-38-6	20 - 40%	*
Boron zinc hydroxide oxide (B12Zn4(OH)14O15)	138265-88-0	5 - 10%	*
n-Butyl glycidyl ether	2426-08-6	5 - 10%	*

Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives	68609-97-2	0.1 - 1%	*
Carbon black	1333-86-4	0.1 - 1%	*
Zinc borate	1332-07-6	0.1 - 1%	*

4. First-aid measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately 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	May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms	Itching. Rashes. Hives. Erythema (skin redness). May cause redness and tearing of the eyes. Burning sensation.
Effects of Exposure	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. Mutagenic effects.

Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical, CO2, water spray or regular foam.
Unsuitable extinguishing media	Do not use water jetstream.
Specific hazards arising from the chemical	Product is or contains a sensitizer. May cause sensitization by skin contact.
Hazardous combustion products	Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Ammonia. Fluorinated oxides. Hydrogen fluoride. Hydrogen chloride. Hydrogen sulfide. Sulfur oxides. Sulfur trioxide. Oxides of sulfur. Phosphorus oxides. Phosphine. Metal oxides.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate 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.

For emergency responders Use personal protection recommended in Section 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear protective gloves, eye protection and face protection. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

8. Exposure controls/personal protection

Control Parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
n-Butyl glycidyl ether (2426-08-6)	TWA: 3 ppm pSk DS	TWA: 50 ppm TWA: 270 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 135 mg/m ³	Ceiling: 5.6 ppm 15 min Ceiling: 30 mg/m ³ 15 min IDLH: 250 ppm
Carbon black (1333-86-4)	TWA: 3 mg/m ³ inhalable particulate matter	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³ ; TWA: 0.1 mg/m ³ ; Carbon black in presence of Polycyclic aromatic hydrocarbons PAH IDLH: 1750 mg/m ³
Zinc borate (1332-07-6)	TWA: 2 mg/m ³ inhalable particulate matter	-	-

	STEL: 6 mg/m ³ inhalable particulate matter		
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Note See section 16 for terms and abbreviations.

Other information on limit values Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Biological occupational exposure limits This product, as supplied, contains materials that do not have reportable biological exposure limits or are not subject to the reporting requirements of the local jurisdiction.

Appropriate engineering controls

Engineering controls Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection Use appropriate respiratory protection. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid
Physical state	Liquid
Color	No information available
Odor (includes odor threshold)	Slight

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Boiling point (or initial boiling point or boiling range)	No data available	None known
Flammability	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	No data available	None known
SADT (°C)	No data available	None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Solubility	No data available	None known
Water solubility	No data available	None known
Partition coefficient n-octanol/water (log value)	No data available	None known
Vapor pressure (includes evaporation rate)	No data available	None known
Evaporation rate	No data available	None known

Density and/or relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known
Particle characteristics		None known
Particle Size	No data available	
Particle Size Distribution	No data available	

Other information**10. Stability and reactivity**

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Keep away from open flames, hot surfaces and sources of ignition. static discharge (electrostatic discharge). Storage near to reactive materials. Dust formation. Protect from moisture.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	None under normal use conditions.

11. Toxicological information

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Information on likely routes of exposure**Product Information**

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Itching. Rashes. Hives. Erythema (skin redness). May cause redness and tearing of the eyes. Burning sensation.
Acute toxicity	Based on available data, the classification criteria are not met.

Numerical measures of toxicity

The following ATE values have been calculated for the mixture
ATE_{mix} (oral) 9,312.70 mg/kg

ATEmix (inhalation-gas)	83,814.50 ppm
ATEmix (inhalation-vapor)	204.90 mg/L
ATEmix (inhalation-dust/mist)	27.90 mg/L

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
n-Butyl glycidyl ether (2426-08-6)	2050 mg/kg (Rat)	788 mg/kg (Rabbit)	1.5 mg/L
Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives (68609-97-2)	5005 mg/kg (rat)	> 4000 mg/kg (Rabbit)	20001 ppm
Carbon black (1333-86-4)	-	> 2000 mg/kg (Rabbit)	-
Zinc borate (1332-07-6)	-	> 10 g/kg (Rabbit)	-

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 skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes serious eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Contains a known or suspected mutagen. Classification based on data available for ingredients. Suspected of causing genetic defects.

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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
n-Butyl glycidyl ether (2426-08-6)	-	Group 2B - Possibly carcinogenic to humans	-	Present
Carbon black (1333-86-4)	A3	Group 2B	-	X

Reproductive toxicity	Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.
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.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information**Ecotoxicity** Toxic to aquatic life with long lasting effects.**Aquatic ecotoxicity****Component Information**

Chemical name	Fish	Crustacea	Algae/aquatic plants	Toxicity to
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				microorganisms
Boron zinc hydroxide oxide (B12Zn4(OH)14O15) (138265-88-0)	0.169 mg/L	0.147 mg/L	0.136 mg/L	-
n-Butyl glycidyl ether (2426-08-6)	-	-	-	-
Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives (68609-97-2)	-	-	-	-

Persistence and degradability No information available.

Bioaccumulative potential

Component Information

Chemical name	Partition coefficient	Bioconcentration factor (BCF)	Trophic magnification factor (TMF)
n-Butyl glycidyl ether (2426-08-6)	-	-	-
Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives (68609-97-2)	-	-	-

Mobility in soil No information available.

Other adverse effects No information available.

13. Disposal considerations

Disposal 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.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

DOT

UN number or ID number UN3082
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III
Special Provisions 8, 146, 173, 335, 441, IB3, T4, TP1, TP29
DOT Marine Pollutant I
Marine pollutant Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)), 9, III, Marine pollutant
Emergency Response Guide Number 171

TDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Marine pollutant name	Bisphenol A-epichlorohydrin polymer.
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A-epichlorohydrin polymer), 9, III

MEX

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Technical Name	Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)), 9, III
Special Provisions	274, 331, 335, 375

ICAO (air)

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)), 9, III
Special Provisions	A97, A158, A197, A215

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Technical Name	Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)
Transport hazard class(es)	9
Packing group	III
Environmental hazards	Yes
Special Provisions	A97, A158, A197, A215
ERG Code	9L
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)), 9, III

IMDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Technical Name	Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)
Transport hazard class(es)	9
Packing group	III
Marine pollutant indicator	P
Marine pollutant name	Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)
Special Provisions	274, 335, 375, 969
EmS-No.	F-A, S-F
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A-epichlorohydrin polymer, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)), 9, III, Marine pollutant

15. Regulatory information**International Regulations**

The Rotterdam Convention Not applicable

International Inventories

TSCA	Complies
DSL/NDL	Not determined
ENCS	Not determined
IECSC	Not determined
KECL	Not determined
PICCS	Not determined
AIIC	Not determined
NZIoC	Not determined
TCSI	Not determined

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Boron zinc hydroxide oxide (B ₁₂ Zn ₄ (OH) ₁₄ O ₁₅) (138265-88-0)	-	X	-	-

CAA (Clean Air Act)

This product does not contain any substances regulated as pollutants pursuant to Clean Air Act (CAA).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product contains CaProp 65 substances above 0.1%!

Chemical name	California Proposition 65
n-Butyl glycidyl ether (2426-08-6)	Carcinogen
Carbon black (1333-86-4)	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Boron zinc hydroxide oxide (B ₁₂ Zn ₄ (OH) ₁₄ O ₁₅) (138265-88-0)	X	-	X
n-Butyl glycidyl ether (2426-08-6)	X	X	X
Carbon black (1333-86-4)	X	X	X
Zinc borate (1332-07-6)	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	Health hazards 2	Flammability 0	Instability 0	Special hazards -
HMIS	Health hazards 2 *	Flammability 0	Physical hazards 0	Personal protection -

*Chronic Hazard Star Legend * = Chronic Health Hazard*

Key or legend to abbreviations and acronyms used in the safety data sheet*List may include phrases which are not applicable to this product*

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECEL	Existing Chemical Exposure Limit
EINECS	European Inventory of Existing Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	U.S. Environmental Protection Agency
GHS	Globally Harmonized System
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organization
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	International Convention for the Prevention of Pollution from Ships
NDSL	Non-Domestic Substances List (Canada)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NTP	National Toxicology Program (United States)

NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
OSHA	Occupational Safety and Health Administration of the US Department of Labor
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitizer
RS	Respiratory Sensitizer
S	Sensitizer
poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption

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

U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 U.S. Environmental Protection Agency
 U.S. EPA 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
 U.S. Hazardous Substance Data Bank (HSDB)
 International Uniform Chemical Information Database (IUCLID)
 Japan National Institute of Technology and Evaluation (NITE)
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 U.S. National Institute for Occupational Safety and Health (NIOSH)
 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)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)

Revision date 28-09-2026

Revision Note No information available.

Disclaimer

Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly, this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet