SAFETY DATA SHEET

PUROX® B FLAKES PURE GRADE BENZOIC ACID

Version	Revision Date:	SDS Number:	Date of last issue: 10/31/2023
4.0	01/04/2024	203000020523	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : PUROX® B FLAKES PURE GRADE BENZOIC ACID

Product code : 000000000062609737

Manufacturer or supplier's details

Company : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, Pennsylvania 15275-1112

Responsible Department : (800) LANXESS
(412) 809-1000
lanxesshes@lanxess.com

Emergency telephone : CHEMTREC (800) 424-9300 or
(703) 527-3887 (Outside U.S.A) and mention CCN12916.
Lanxess Emergency Phone (800) 410-3063.

Recommended use of the chemical and restrictions on use

Recommended use : Additive

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

Skin irritation : Category 2

Serious eye damage : Category 1

Specific target organ toxicity - repeated exposure (Inhalation) : Category 1 (Lungs)

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : May form combustible dust concentrations in air.
Causes skin irritation.
Causes serious eye damage.
Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Supplemental Hazard Statements : Prevent dust accumulation.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
Get medical attention if symptoms occur.
In case of contact, flush skin or eyes with plenty of lukewarm water.

Precautionary Statements :

Prevention:

Do not breathe dust.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/ eye protection/ face protection.

Response:

IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
Get medical advice/ attention if you feel unwell.
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Components

Chemical name	CAS-No.	Concentration (% w/w)
benzoic acid	65-85-0	>= 99 - <= 100

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

If inhaled : If not breathing, if breathing is irregulor or respiratory arrest occurs, provide artifical respiration, or oxygen by a trained professional, using a pocket type respirator.
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Get medical attention if adverse health effects persist or are severe.
Maintain open airway.
Loosen tight clothing such as a collar, tie, belt or waistband.

In case of skin contact : Wash off with soap and water.
Remove contaminated clothing and shoes.
Continue to rinse for at least 20 minutes.
Get medical attention if symptoms occur.
Wash contaminated clothing before re-use.

In case of eye contact : Get medical attention immediately.
In case of contact, flush eyes with plenty of water for at least 30 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated.
Remove contact lenses, if present and easy to do. Continue rinsing.
Chemical burns must be treated promptly by a physician.

If swallowed : Rinse mouth with water.
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.
If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
Never give anything by mouth to an unconscious person.
If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.
Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed

Symptoms	:	Eye: Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage. Skin: Causes irritation with symptoms of reddening, itching, and swelling. May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.
Effects	:	Causes skin irritation. Causes serious eye damage. Causes damage to organs through prolonged or repeated exposure if inhaled.
Protection of first-aiders	:	If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Fine powder forms flammable and explosive mixtures in air. May release toxic, irritating and/or corrosive gases. Water runoff from fire fighting may be corrosive. Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide
Further information	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire if this can be done without risk. Cool closed containers exposed to fire with water. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Remove all sources of ignition. Avoid dust formation. Ensure adequate ventilation or exhaust ventilation in the working area. Avoid breathing dust. Use personal protective equipment.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Move containers from spill area. Use non-sparking tools. Use explosion-proof electrical equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of wastes in an approved waste disposal facility.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Avoid inhalation, ingestion and contact with skin and eyes. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment should be protected to the appropriate standard. Take precautionary measures against static discharges. Empty containers retain product residue; observe all precautions for product. Do not re-use empty containers. Remove contaminated clothing and protective equipment be-

fore entering eating areas.
Workers should wash hands and face before eating, drinking and smoking.
Put on appropriate personal protection equipment.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Use non-sparking tools and equipment. Consult National Fire Protection Association (NFPA) 654 Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids for details on the safe handling and equipment design.

Conditions for safe storage : Store in accordance with local regulations.
Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
Keep containers sealed until ready for use.
Keep away from heat and sources of ignition.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Do not store in unlabeled containers.
Use appropriate container to avoid environmental contamination.
Empty containers retain residue and can be dangerous.
Do not reuse container.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
benzoic acid	65-85-0	TWA (Inhalable fraction and vapor)	0.5 mg/m3	ACGIH

Engineering measures : Use only with adequate ventilation.
If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the

work area (i.e., there is no leakage from the equipment).
Use explosion-proof ventilating equipment.

Personal protective equipment

Respiratory protection : NIOSH approved, air-purifying particulate respirator with N-95 filters.

Dust-protection mask if there is a risk of dust formation.

Hand protection
- Material : Nitrile rubber - NBR
- Wearing time : < 60 min

- Material : Polyvinyl chloride - PVC
- Wearing time : < 60 min

- Remarks : Permeation resistant gloves.
After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective clothing and gloves.
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
Appropriate techniques should be used to remove potentially contaminated clothing.
Wash contaminated clothing before reuse.
Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : solid

flakes

Physical state : solid

Color : white

Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	2.8 (77 °F / 25 °C) Saturated solution in water
Melting point/freezing point	:	252 °F / 122 °C
Boiling point/boiling range	:	480 °F / 249 °C (1,013 hPa)
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	The product is not flammable., May form combustible dust concentrations in air.
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	0.0011 hPa (77 °F / 25 °C)
Relative vapor density	:	No data available
Relative density	:	1.32 (68 °F / 20 °C)
		1.06 (302 °F / 150 °C)
Density	:	1.32 g/cm3 (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	3.5 g/l (77 °F / 25 °C)
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	log Pow: 1.88
Ignition temperature	:	No data available
Decomposition temperature	:	No data available

Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Surface tension	:	67.5 mN/m, 68 °F / 20 °C
Molecular weight	:	No data available
Minimum explosible dust concentration	:	40 - 50 g/m3
Dust explosion class	:	St1
Particle size	:	> 500 µm

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under normal conditions.
Conditions to avoid	:	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Avoid dust accumulation in enclosed space. Exposure to moisture.
Incompatible materials	:	Oxidizing agents Reducing agents Bases Metals
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Skin contact
Inhalation
Ingestion

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	Acute toxicity estimate: 2,566 mg/kg Method: Calculation method Acute toxicity estimate: 2,566 mg/kg Method: Calculation method

Components:

benzoic acid:

Acute oral toxicity	:	LD50 (Rat, male and female): 2,565 mg/kg Method: OECD Test Guideline 401 GLP: no
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 12.2 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Fixed Dose Method GLP: no Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Dosage caused no mortality
Acute dermal toxicity	:	LD50 (Rabbit, male and female): > 2,000 mg/kg Method: Fixed Dose Method GLP: no Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Causes skin irritation.

Components:

benzoic acid:

Species	:	Guinea pig

Result : Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

benzoic acid:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Exposure time	:	21 Days
Method	:	Regulation (EC) No. 440/2008, Annex, B.5
GLP	:	yes

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

benzoic acid:

Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	No information available.
Result	:	Did not cause sensitization on laboratory animals.
GLP	:	No information available.

Test Type	:	Buehler Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	EPA OPP 81-6
Result	:	Did not cause sensitization on laboratory animals.
GLP	:	yes

Germ cell mutagenicity

Not classified based on available information.

Components:

benzoic acid:

Genotoxicity in vitro	:	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471
Result: negative
GLP: no

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster fibroblasts
Metabolic activation: without metabolic activation
Result: equivocal

Test Type: Micronucleus test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 487
Result: negative
GLP: No information available.

Genotoxicity in vivo : Test Type: Chromosomal aberration assay
Species: Rat (male)
Cell type: Bone marrow
Application Route: Oral
Method: OECD Test Guideline 475
Result: negative
GLP: no
Remarks: Test results on an analogous product

Test Type: dominant lethal test
Species: Rat (male and female)
Application Route: Oral
Method: OECD Test Guideline 478
Result: negative
GLP: no
Remarks: Test results on an analogous product

Carcinogenicity

Not classified based on available information.

Components:

benzoic acid:

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	18 - 24 month(s)
Result	:	negative
Remarks	:	Test results on an analogous product

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

benzoic acid:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 5000 - 10000 parts per million
General Toxicity Parent: NOAEL: >= 10,000 parts per million
General Toxicity F1: NOAEL: >= 10,000 parts per million
Fertility: NOAEL: >= 10,000 parts per million
Early Embryonic Development: NOAEL: >= 10,000 ppm
Method: OECD Test Guideline 416
Result: No effects on fertility and early embryonic development were detected.
GLP: no
Remarks: Test results on an analogous product

Effects on fetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Dose: 0-699-1306-1874-965 milligram per kilogram
General Toxicity Maternal: NOAEL: 1,306 mg/kg bw/day
Developmental Toxicity: NOAEL: 1,306 mg/kg bw/day
Method: OECD Test Guideline 414
GLP: no
Remarks: Test results on an analogous product

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Components:

benzoic acid:

Routes of exposure : Inhalation
Target Organs : Lungs
Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 1.

Repeated dose toxicity

Components:

benzoic acid:

Species	:	Rat, male and female
NOAEL	:	1000 mg/kg
Application Route	:	Oral
Exposure time	:	18 - 24 Months
Number of exposures	:	daily
Remarks	:	Chronic toxicity Test results on an analogous product

Species	:	Rat, male and female
NOAEL	:	<= 25 mg/m³
Application Route	:	Inhalation
Test atmosphere	:	dust/mist
Exposure time	:	4 Weeks
Number of exposures	:	5 days/week
Dose	:	25 - 250 - 1200 mg/m3
Method	:	OECD Test Guideline 412
GLP	:	yes
Target Organs	:	Lungs
Symptoms	:	Local irritation
Remarks	:	Subacute toxicity

Species	:	Rat, male and female
NOAEL	:	250 mg/m³
LOAEL	:	1200 mg/m³
Application Route	:	Inhalation
Test atmosphere	:	dust/mist
Exposure time	:	4 Weeks
Number of exposures	:	5 days/week
Dose	:	25 - 250 - 1200 mg/m3
Method	:	OECD Test Guideline 412
GLP	:	yes
Target Organs	:	Systemic toxicity
Remarks	:	Subacute toxicity

Species	:	Rabbit, male and female
NOAEL	:	>= 2500 mg/kg
Application Route	:	Dermal
Exposure time	:	3 Weeks
Number of exposures	:	5 days/week
Dose	:	100 - 500 - 2500 mg/kg bw/day
Method	:	OECD Test Guideline 410

GLP : yes
Remarks : Subacute toxicity

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

benzoic acid:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 44.6 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 203
GLP: No information available.
Remarks: Fresh water
nominal concentration

LC50 (Oncorhynchus mykiss (rainbow trout)): 47.3 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: No information available.
Method: OECD Test Guideline 203
GLP: No information available.
Remarks: Fresh water
nominal concentration

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Analytical monitoring: no
Method: EPA-660/3-75-009
GLP: No information available.
Remarks: Fresh water
nominal concentration

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 33.1 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes

Method: OECD Test Guideline 201
GLP: yes
Remarks: Fresh water
Test results on an analogous product

EC10 (Raphidocelis subcapitata (freshwater green alga)): 3.4 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes
Remarks: Fresh water
Test results on an analogous product

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): > 120 mg/l
Exposure time: 28 d
Test Type: semi-static test
Analytical monitoring: No information available.
Method: OECD Test Guideline 215
GLP: No information available.
Remarks: Fresh water
nominal concentration

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): >= 25 mg/l
End point: Reproduction
Exposure time: 21 d
Test Type: semi-static test
Analytical monitoring: No information available.
Method: OECD Test Guideline 211
GLP: No information available.
Remarks: Fresh water
nominal concentration

Toxicity to microorganisms : IC50 (activated sludge): > 1,000 mg/l
End point: Respiration inhibition
Exposure time: 3 h
Test Type: static test
Analytical monitoring: No information available.
Method: OECD Test Guideline 209
GLP: No information available.
Remarks: Fresh water
nominal concentration

Persistence and degradability

Components:

benzoic acid:

Biodegradability : anaerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: >= 89 %
Exposure time: 21 - 35 d
Method: OECD Test Guideline 311
GLP: No information available.

Bioaccumulative potential

Components:

benzoic acid:

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Partition coefficient: n-octanol/water : log Pow: 1.88
Method: measured

Mobility in soil

Components:

benzoic acid:

Distribution among environmental compartments : Koc: 15.49
Method: estimated

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material contain-

ing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Waste from residues : The generation of waste should be avoided or minimized wherever possible.
This material and its container must be disposed of in a safe way.
Empty containers retain product residue; observe all precautions for product.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

International Regulations

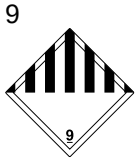
IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (BENZOIC ACID)
Class	:	9
Packing group	:	III
Labels	:	9
	:	
ERG Code	:	171
RQ	:	5,002.13 lb
Marine pollutant	:	no

Hazard and Handling Notes.
Risk of serious damage to eyes
Irritating to skin.

Keep away from acids and oxidizing agents
Keep away from foodstuffs, acids and alkalis
When in individual containers of less than the Product RQ, this material ships as non-regulated.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
benzoic acid	65-85-0	5000	5002

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust
Specific target organ toxicity (single or repeated exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

benzoic acid	65-85-0	>= 99 - <= 100
phenol	108-95-2	< 0.001

Pennsylvania Right To Know

benzoic acid	65-85-0	>= 99 - <= 100

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

TSCA inventory

TSCA : All substances listed as active on the TSCA inventory

TSCA list

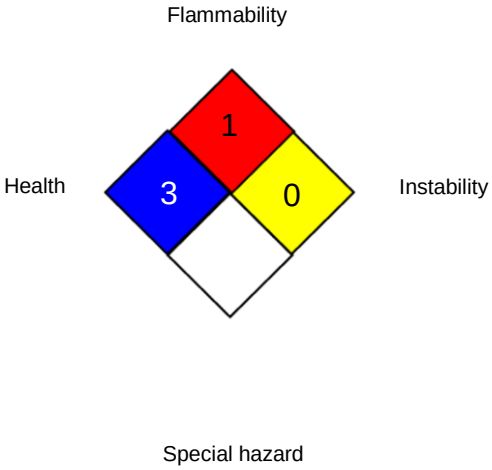
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

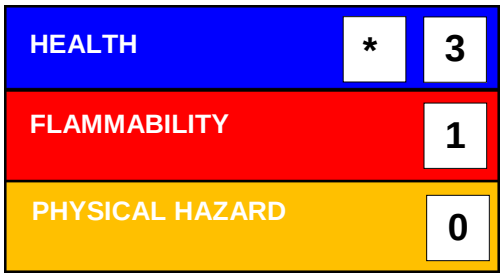
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH / TWA	:	8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing

Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 01/04/2024

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. 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 to be a guidance for processing and does not contain any 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. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.