



SIGMA-ALDRICH

Material Safety Data Sheet

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Section 1 - Product and Company Information

Product Name Propyl gallate
Product Number P3130
Brand Sigma Chemical

Company Sigma-Aldrich
Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052

Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
PROPYL GALLATE	121-79-9	No	204-498-2	607-198-00-3

Formula C10H12O5
Synonyms Benzoic acid, 3,4,5-trihydroxy-, propyl ester, NIPA 49, Nipagallin P, Progallin P, Propylester kyseliny gallove (Czech), n-Propyl ester of 3,4,5-trihydroxybenzoic acid, Propyl gallate, n-Propyl gallate, Propyl 3,4,5-trihydroxybenzoate, n-Propyl 3,4,5-trihydroxybenzoate, Tenox PG, 3,4,5-Trihydroxybenzene-1-propylcarboxylate, 3,4,5-Trihydroxybenzoic acid n-propyl ester

Section 3 - Hazards Identification

Emergency Overview

Harmful.
Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

HMIS Rating
Health: 3 Flammability: 2 Reactivity: 0

NFPA Rating
Health: 3 Flammability: 2 Reactivity: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure

If swallowed, do not induce vomiting; call a physician immediately.

Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure

In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

Explosion Data

Dust Potential

This material, like most materials in powder form, is capable of creating a dust explosion.

Flash Point: 187 °F 86.1 °C

Autoignition Temp: 438 °C

Extinguishing Media

Suitable

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust.

Section 7 - Handling and Storage

Handling

User Exposure

Avoid inhalation. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

Engineering Controls

Safety shower and eye bath. Mechanical exhaust required. Use only in a chemical fume hood.

Personal Protective Equipment

Respiratory

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand

Rubber gloves.

Eye

Chemical safety goggles.

General Hygiene Measures

Wash contaminated clothing before reuse, Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Color	Form
Physical State		
Solid	Faintly beige	Crystals

Molecular Weight: 212,2 AMU

pH	5,7 - 6,3
BP/BP Range	N/A
MP/MP Range	148 - 150 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	1,21 g/cm3
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	Log Kow: 1,51
Decomposition Temp.	330 °C
Flash Point °F	187 °F
Flash Point °C	86,1 °C

Method: closed cup
Method: closed cup

Explosion Limits N/A

Flammability N/A
Autoignition Temp 438 °C

Solubility
Solubility in Water: Soluble.

N/A = not available

Section 10 - Stability and Reactivity

Stability

Stable

Stable.

Materials to Avoid

Strong oxidizing agents, Strong acids, Strong bases, Strong reducing agents.

Hazardous Decomposition Products

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide.

Hazardous Polymerization

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Skin Absorption

May be harmful if absorbed through the skin.

Inhalation

May be harmful if inhaled.

Ingestion

Harmful if swallowed.

Multiple Routes

Causes eye and skin irritation.

Sensitization

Skin

May cause allergic skin reaction.

RTECS Number: LW8400000

Toxicity Data

Oral - Rat: 3,000 mg/kg(LD50)

Oral - Mouse: 2,000 mg/kg(LD50)

Oral - Rat: 2100 mg/kg (LD50)

Intraperitoneal - Rat: 380 MG/KG (LD50)

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Lungs, Thorax, or Respiration:Dyspnea.

Lungs, Thorax, or Respiration:Other changes.

Oral - Mouse: 1700 mg/kg (LD50)

Oral - Rabbit: 2750 mg/kg (LD50)

Oral - Pig: > 6000 mg/kg (LD50)

Remarks: Kidney, Ureter, Bladder:Other changes.

Oral - Hamster: 2480 mg/kg (LD50)

Chronic Exposure - Carcinogen

Mouse - Oral: 168 GM/KG 2Y C

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. Liver:Tumors.

NTP Carcinogen List

Rating

No evidence.

Species

Mouse/rat

Route

Feed

Chronic Exposure - Teratogen

Species

Rat

Dose

45 GM/KG

Route of Application

Oral

Exposure Time

(1-22D PREG)

Result:Specific Developmental Abnormalities: Musculoskeletal system.

Chronic Exposure - Mutagen

Species

Mouse

Dose

900 MG/KG

Route

Intraperitoneal

Exposure Time

72H

Mutation test

Micronucleus test

Mutation in mammalian somatic cells.

Cytogenetic analysis

Cytogenetic analysis

Cytogenetic analysis

Sister chromatid exchange

Chronic Exposure - Reproductive Hazard

<u>Species</u>	<u>Dose</u>	<u>Route of Application</u>	<u>Exposure Time</u>
Rat	19 GM/KG	Oral	(1-22D PREG)
Result: Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive).			
Rat	2500 MG/KG	Oral	(1-22D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).			

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations**Appropriate Method of Disposal of Substance or Preparation**

Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information**DOT**

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information**EU Directives Classification**

Symbol of Danger: Xn

Indication of Danger

Harmful.

Risk Statements

R: 22 43

Harmful if swallowed. May cause sensitization by skin contact.

Safety Statements

S: 24 37

Avoid contact with skin. Wear suitable gloves.

US Classification and Label Text

Indication of Danger

Harmful.

Risk Statements

Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

United States Regulatory Information

SARA Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information**WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Other Information**Disclaimer**

For R&D use only. Not for drug, household or other uses.

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Sigma-Aldrich Corporation

www.sigma-aldrich.com

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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