ZONE
IMAGING

Zone Imaging Ltd.

Safety Data Sheet

Pyrogallol

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

1.1. Product identifier

Product name	Pyrogallol
Additional identification	1,2,3-Trihydroxybenzene; 1,2,3-Benzenetriol; Pyrogallic acid
Product number	5060594641060, 5060594641077
Container size	50g, 100g

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

Identified uses	Intermediate chemical used in the synthesis of photo-chemicals.
Other uses	None

1.3. Details of the supplier of the safety data sheet

Supplier	Zone Imaging Ltd., Unit 6, 58b Alexandra Road, Enfield, London, EN3 7EH, UK
Tel	+4477 6099 6515
Email	info@zoneimaging-photochemicals.co.uk
Emergency tel	+4477 6099 6515

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Product definition: Substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute toxicity 4: H302

Acute toxicity 4: H312

Acute toxicity 4: H332

Skin Irritant 2: H315

Skin Sensitiser 1: H317

Eye Damage 2: H319

Mutagen 2: H341

Aquatic Toxicity Chronic 3: H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the hazard statements declared above.

2.2. Label elements

Pictograms

Signal word Warning

Hazard statements

H302 – Harmful if swallowed. Acute tox. 4

H312 – Harmful if in contact with skin. Acute tox. 4

H332 – Harmful if inhaled. Acute tox. 4

H315 – Causes skin irritation. Skin irritation 2

H317 – May cause an allergic skin reaction. Skin sens. 1

H319 – Causes serious eye irritation. Eye dam. 2

H341 – Suspected of causing genetic defects. Muta. 2

H412 – Harmful to aquatic life with long lasting effects

Precautionary statements

General Not Applicable

Prevention	**P201**: Obtain special instructions before use.
	P202: Do not handle until all safety precautions have been read and understood.
	P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
	P264: Wash hands and equipment thoroughly after handling.
	P270: Do not eat/drink/smoke when using this product.
	P271: Use outdoors or in a well-ventilated area.
	P273: Avoid release to the environment.
	P280: Wear protective gloves/protective clothing/eye protection/face protection.
Response	**P301 + P312:** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
	P302+P352 IF ON SKIN: Wash with plenty of water
	P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308+P313 IF exposed or concerned: Get medical advice/attention.
	P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
	P337+P313 If eye irritation persists: Get medical advice/attention.
	P362+P364 Take off contaminated clothing and +wash it before reuse.
Storage	**P405** Store locked up.
Disposal	**P501** Dispose of contents/container in accordance with local regulations.

Hazardous ingredients	Pyrogallol
Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	N/A

2.3. <u>Other Hazards</u>

Other hazards which do not result in classification	None

SECTION 3: Composition/information on ingredients

3.1. Mixture of the substances listed below with harmless additions

Substance name	Identifiers	Concentration	Hazards
Pyrogallol	CAS# 87-66-1 EC# 201-762-9 REACH# 01-2120771401-62	99.5%	Acute Tox 4 H302 Acute Tox 4 H312 Skin Irrit 2 H315 Skin Sens 1 H317 Eye Dam 2 H319 Acute Tox 4 H332 Muta 2 H341 Aq Tox Chr 3 H412

SECTION 4: First aid measures

4.1. Description of first aid measures

General information In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Oxygen may additionally be given, by trained personnel, if it is available. Get medical attention if symptoms occur.

Ingestion Do not induce vomiting. Rinse out patient's mouth (if conscious) with water then give plenty of water to drink; keep warm and at rest. If unconscious, place/transport patient in secured side recovery position. Obtain immediate medical aid.

Skin contact Remove contaminated clothing and wash affected area thoroughly with soap and water. Report for medical attention.

Eye contact Wash eyes with eyewash solution or clean water, holding the eyelids apart, for at least fifteen minutes (do not let run-off water contaminate unaffected eye). Obtain immediate medical aid.

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

Inhaled dust is harmful and may cause irritation of the respiratory system (eg coughing and sneezing). May cause irritation (eg redness, tears, conjunctivitis). Harmful by skin absorption and may cause irritation (eg reddening of skin, itching). Harmful if swallowed and may cause gastric disturbance (eg vomiting, diarrhoea, stomach cramps).

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

If skin irritation or rash occurs, get medical advice/attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray. Foam, dry powder, or CO2 may also be used.
Unsuitable extinguishing media	Not available

5.2. Special hazards arising from the substance or mixture

Specific risks	Combustible. Fine dust mixtures with air may be explosive.
Hazardous combustion products	May produce irritating and/or toxic fumes of organic compounds and carbon monoxide. Mixtures of fine dust with air may be explosive.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours.
Special protective equipment	Wear protective eyewear, gloves and clothing. Use NIOSH approved respiratory protection/breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.
Emergency procedures	If the accidental release is significant, consider evacuating workplace or exposed area. Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

6.2. Environmental precautions

Environmental precautions	Prevent spilt material or contaminated wash or fire-fighting water entering drains or watercourses – contain by portable bunding if necessary and protect drains with covers. Dampen spillages with water to prevent dust dispersion. Collect up spillages without delay. Collect and dispose of spillage as indicated in Section 13.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing, gloves, eye and face protection. Small Spillages: Flush away spillage with plenty of water. Large Spillages: Collect up powder using spark proof industrial vacuum cleaner with high efficiency filters. Otherwise, collect up using non-metal shovel avoiding formation of dust cloud (dampen solid if necessary if it not to

be reused). Transfer collected material to steel or plastic containers for safe disposal – see Section 13. Subsequently wash down affected area with detergent and water. Prevent chemical or contaminated wash water from entering drains or watercourses.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Generally handle material in ways which minimise dust build up; where dust formation is likely ensure adequate filtered ventilation and keep all ignition sources away. Avoid spilling. Avoid contact with skin and eyes. Do not eat, drink, or smoke when using this product. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Avoid damaging packages.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container away from light and somewhere dry. Storage advice to ensure the product remains in a useable condition throughout its specified shelf life: Store at temperatures above 10°C. Store at temperatures not exceeding 30°C.

Storage class

Chemical storage.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters: Occupational exposure limits

Not available.

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

Provide adequate ventilation. This product must not be handled in a confined space without adequate ventilation.

Eye/face protection	Tightly sealed safety glasses or face shield.
Hand protection	Use protective gloves. The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. Only use chemical-protective gloves with CE-labelling of category III. Avoid contact with used gloves. Do not wear heavily contaminated or damaged gloves and decontaminate before removal. Check condition regularly, especially for abrasion damage. Recommended material of gloves: Nitrile rubber, butyl rubber. Recommended thickness of the material: >= 0.5 mm
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Fine crystals
Colour	White to off-white
Odour	Very slight
pH @20°C	5 to 5.4 (20% aqueous solution)
Melting point/range (°C)	131 - 134°C
Boiling point/range (°C):	Not available
Flash point (°C):	293°C
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Combustible
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Lower explosive limit (dust) :1.4%
Vapour pressure (20°C):	100mmHg (167.7°C)
Vapour density:	Not available
Relative Density:	0.5 or 1.453
Water solubility (g/l):	Soluble

Auto-ignition temperature:	Not available
Decomposition temperature:	293 or 309°C
Explosive properties:	High potential if in fine dust form
Oxidising properties:	Not available
Molecular Formula:	C6H6O3
Molecular Weight:	126.11

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	See the other subsections of this section for further details.

10.2. Chemical stability

Stability	Stable under the prescribed storage conditions. No stability concerns. Darkens with exposure to light or air.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not reported to undergo hazardous reactions although like most organic substances may react and ignite with oxidising agents.

10.4. Conditions to avoid

Conditions to avoid	Incompatible materials. Heat, damp, and exposure to light or air.

10.5. Incompatible materials

Materials to avoid	Strong oxidizing agents. Acid chlorides, acid anhydrides, bases, oxidizing agents, metals, alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products	May produce irritating and/or toxic fumes of organic compounds and carbon monoxide. Mixtures of fine dust with air may be explosive.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	The product contains no carcinogenic substances.
Reproductive toxicity	Not classified.

Specific target organ toxicity	STOT - single exposure: Not classified. STOT – repeated exposure: Not classified.
Acute and chronic health hazards	Prolonged or repeated exposure may cause severe irritation. May cause skin irritation/eczema. May cause sensitisation by skin contact. Irritating to eyes. Vapour or spray in the eyes may cause irritation and smarting. May cause allergy. May cause hypersensitivity.

Acute toxicity **LD/LC50 values that are relevant for classification:**		
Pyrogallol		
Oral	LD50	790mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalation	LC50	No data available

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity	Harmful to aquatic organisms.
Acute toxicity – fish	LC50, 48 hours: 18 mg/l, fish
Acute toxicity – aquatic invertebrates	EC50, 24 hours: 54 mg/l, Daphnia magna (Water flea)
Acute toxicity – algae	Not available.
Acute toxicity – bacteria	EC50, 16 hours: 3.8 mg/l, Pseudomonas putida

12.2. Persistence and degradability

Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulation

Bioaccumulation	BCF= 0.37 (estimated).

12.4. Mobility in soil

Mobility in soil	Estimated to be very high with little adsorption on soil particles.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This substances is not classified for PBT or vPvB.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods	Due to the high risk of contamination recycling/recovery is not recommended. Waste disposal in accordance with local regulations (most probably controlled incineration).

SECTION 14: Transport information

Not regulated for all modes of transportation.

UN Number (ADR/RID, IMDG, IATA)	N/A
UN Proper Shipping Name (ADR/RID, IMDG, IATA)	Not applicable
Transport Hazard Class(es) ADR/RID, IMDG, IATA	None
Packing group (ADR/RID, IMDG, IATA)	Not applicable
Environmental hazards	None
Special precautions for user	None
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
Transport/Additional Information	See the following notes:
ADR/RID	Goods are not subject to the provisions in accordance with the special provision 375 ADR.
IMDG	Goods are not subject to the provisions in accordance with 2.10.2.7 IMDG-Code.
IATA	Goods are not subject to the provisions in accordance with the special provision 197 IATADGR.

SECTION 15: Regulatory information

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste

	and Directive 91/689/EEC on hazardous waste with amendments.
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

General information	Zone Imaging Ltd believe the information and recommendations contained herein are based on correct and factual data. However, no express or implied guarantee or warranty of any kind is made with respect to this information. Use this information only to supplement other information you have gathered and then make an independent determination about the completeness and suitability of all information to ensure the proper use and disposal of this product and the health and safety of employees and customers.
Issued by	Zone Imaging Ltd., Unit 6, 58b Alexandra Road, Enfield. London, EN3 7EH, UK Tel: +447 7609 965 15 Email: james.lane@zoneimaginglab.co.uk www.zoneimaging-photochemicals.co.uk Publication date: 28/03/2023
Abbreviations and acronyms	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road (Accord Européen sur le Transport des Marchandises Dangereuses par Route) RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EC: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration at which 50% of the animals will be expected to die.

LD50: Lethal dose at which 50% of the animals will be expected to die.

EC50: Effective concentration of test substance which results in a 50 percent reduction in either algae growth (EbC50) or algae growth rate (ErC50) or Daphina immobilization.

Hazard statements in full

H302 – Harmful if swallowed. Acute tox. 4

H312 – Harmful if in contact with skin. Acute tox. 4

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