Material Safety Data Sheet

Isophthalic Acid

Section 1 - Product Identification

Product name: Isophthalic Acid
Product Number: -
Brand: Perstorp Singapore Pte Ltd
Supplier: Perstorp Singapore Pte Ltd
12 Sakra Road
Jurong Island
Singapore 627892

Relevant identified uses of the substance or mixture and uses advised against
Industrial use
Industrial manufacturing Manufacture of substances Distribution and storage Formulations Manufacture: of polymers including resins of oligomers
Professional use
Use: in laboratories
Uses advised against Not identified.
Application of the substance / the preparation: Intermediate

Telephone: +65 68676393
Fax : + +65 68676204
Information department:
productinfo@perstorp.com
Corporate EHSQ
Emergency telephone number:
(United States) - CHEMTREC 1-800-424-9300.
(Int.) +46 8 337043 (Emergency Response Center, Sweden)

Section 2 – Composition/Information on Ingredients

Synonyms : Isophthalic Acid
Formula : $C_6H_4(CO_2H)_2$
Molecular Weight : 166.132 g/mol

Component	Classification	Concentration
Isophthalic Acid		
Cas No.: 121-91-5 EC Number: 204-506-4	-	≥99 %

Section 3 – Hazards Identification

Classification of the substance or mixture
The substance is not classified according to the Globally Harmonized System (GHS).
Label elements

GHS label elements
Hazard pictograms: Not applicable
Signal word: Not applicable
Hazard statements: Not applicable
Precautionary statements: Not applicable
Hazard description: The product is not classified as hazardous to health or the environment, but the product may cause dust explosions and preventive measures must be taken.
Other hazards
Results of PBT and vPvB assessment
PBT: No.
vPvB: No.

Section 4 – First-Aid Measures

Description of first aid measures
After inhalation: First aid measures not required, but get fresh air for personal comfort.
After skin contact: First aid measures not required, but wash exposed skin with soap and water for hygienic reasons. · After eye contact: First aid measures not required, but rinse opened eye under running water for personal comfort to avoid mechanical irritation.
After swallowing: If a large quantity has been ingested or you feel unwell, get medical advice/attention.
Most important symptoms and effects, both acute and delayed: No further relevant information available. · Indication of any immediate medical attention and special treatment needed No further relevant information available.

Section 5 – Fire Fighting Measures

Extinguishing media
All types of extinguishing media are suitable. Use fire extinguishing methods suitable to surrounding conditions.
For safety reasons unsuitable extinguishing agents: Water with full jet
Special hazards arising from the substance or mixture
Dust may form explosive mixture with air. Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released: Carbon monoxide (CO) Carbon dioxide (CO2)
Advice for firefighters
Protective equipment: Fire-fighters should wear appropriate protective equipment and selfcontained 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
Important: Remove all ignition sources. Avoid further dust formation. If dusty conditions wear respiratory protective device with dust filter, gloves and protective clothing for hygienic reasons.
Environmental precautions: Inform respective authorities in case of seepage into water course or sewage system. · Methods and material for containment and cleaning up: Cover to prevent dust formation. Pick up mechanically. Use explosion-proof apparatus / fittings and spark-proof tools. Clean the affected area carefully; suitable cleaners are: water Reference to other sections See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

Section 7 – Handling and Storage

Precautions for safe handling
Do not inhale dust. Prevent formation of dust.
Information about protection against explosions and fires:
Dust can combine with air to form an explosive mixture. Any deposit of dust which cannot be avoided must be regularly removed. Ensure good ventilation/exhaustion at the workplace. Keep away from sources of ignition. Protect against electrostatic charges. Use explosion-proof apparatus / fittings and spark-proof tools. Comply with the legislation concerning equipment and protective systems intended for use in potentially explosive atmospheres.
Conditions for safe storage, including any incompatibilities
Any deposit of dust which cannot be avoided must be regularly removed.
Storage:
Further information about storage conditions
Keep receptacle tightly sealed. Store receptacle in a well-ventilated area. Store in dry conditions.
Specific end use(s) No further relevant information available.

Section 8 – Exposure Controls/Personal Protection

Control parameters
Components with limit values that require monitoring at the workplace:
10 mg/m3 for PNOC (Total dust) ACGIH TLV-TWA
3 mg/m3 for PNOC (Respirable fraction) ACGIH TLV-TWA

Exposure controls
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
Breathing equipment:
Wear respiratory device with dust filter (minimum N95) in case of insufficient ventilation.
Protection of hands:
Protective gloves not really required. However, we recommend using protective gloves made of rubber. PVC gloves Plastic gloves
Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Section 9 – Physical and Chemical Properties

Information on basic physical and chemical properties
General Information
Appearance:
Form: Crystalline powder
Color: White
Odor: Odorless
Change in condition
Melting point/Melting range: 338-342°C
Boiling point/Boiling range: Sublimes.
Flash point: Not applicable
Flammability (solid, gaseous): The product is not flammable.

Ignition temperature: Not determined
Danger of explosion: The product is not explosive. However, formations of explosive air/dust mixtures are possible.
Explosion limits: Not applicable
Oxidizing properties Not oxidizing.
Vapor pressure: Not applicable
Density at 20°C: 1.54 g/cm³ (ISO 1183-1)
Solubility in / Miscibility with Water at 20°C: 0.11 g/l (OECD 105)
Segregation coefficient (n-octanol/water) at 25°C: 1.1 log POW (OECD 117)
Viscosity: Dynamic: Not applicable
Other information: No further relevant information available.

Section 10 – Stability and Reactivity

Reactivity
There exists no specific test data for this product. For further information, see the subsequent subsections of this chapter.
Chemical stability: The product is stable at normal conditions.
Possibility of hazardous reactions: Risk of dust explosion if enriched with fine dust in the presence of air.
Conditions to avoid
Risk for dust explosion, avoid handling which can create static electrical discharges.
Incompatible materials: Strong oxidizing agents.
Hazardous decomposition products: In case of fire, the following can be released: Carbon monoxide (CO) Carbon dioxide (CO2)

Section 11 – Toxicological Information

Information on toxicological effects
Acute toxicity:
LD/LC50 values:
121-91-5 isophthalic acid
Oral LD50 >5000 mg/kg (rat) (OECD 401)
Dermal LD50 >2000 mg/kg (rabbit) (OECD 402)
Inhalative LC50(4h) > 11370 mg/m³ (rat) (~ OECD 403)

Primary irritant effect: on the skin: No irritant effect. (OECD 404)
on the eye: No irritating effect. (OECD 405)
Sensitization No skin sensitization. (OECD 406)
Carcinogenicity: There exists no studies for this substance. Increased incidences of urinary bladder cell tumours were however seen in rat studies with structurallyrelated and toxicologically comparable substance, terephthalic acid (TPA) at dose levels equivalent to 1000 mg/kg bw/d and higher. However a clear threshold has been demonstrated for this effect which is additionally not considered to be of direct relevance to humans at predicted exposure levels.
Mutagenicity: The product is not considered to be mutagenic. In vitro: Not mutagenic in Bacterial Reverse Mutation Assay. (OECD 471) The substance is not clastogenic. Mammalian Chromosomal Aberration Test (OECD 473). Not mutagenic in mammalian cells. (OECD 476) In vivo: Not mutagenic in in vivo Mammalian Erythrocyte Micronucleus Test. (OECD 474) *
Reproductive toxicity: A two-generation reproduction toxicity study performed with a read-across substance did not indicate any potential for reproductive or developmental toxicity.

Remark: * read across from supporting substance (structural analogue)

Section 12 – Ecological Information

Toxicity
Aquatic toxicity:
Low toxicity to aquatic organisms.
121-91-5 isophthalic acid
EC50/21d >19.5* mg/l (Daphnia magna) (OECD 211)
EC50/48h >952 mg/l (Daphnia magna) (OECD 202)
LC50/96h >907 mg/l (Leuciscus idus) (OECD 203)
NOEC/96h 1000 mg/l (Desmodesmus subspicatus) (OECD 201)
Persistence and degradability
The product is readily biodegradable.
121-91-5 isophthalic acid
BOD14 90 % (-) (OECD 301B)
Behavior in environmental systems:
Bioaccumulative potential
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
Mobility in soil
The substance is not expected to adsorb to a high degree to suspended solids and sediment based upon the log Pow. ·
Ecotoxical effects:
Behavior in sewage processing plants:
121-91-5 isophthalic acid
EC50/3h 617.1 mg/l (activated sludge) (OECD 209)
Additional ecological information:
General notes: Generally not hazardous for water
Results of PBT and vPvB assessment
PBT: No.
vPvB: No.
Other adverse effects No further relevant information available.
Remark: * read-across from supporting substance (structural analogue)

Section 13 – Disposal Considerations

Waste treatment methods The product is not classified as hazardous waste.
Uncleaned packagings:
Thoroughly emptied and clean packagings may be recycled. Contaminated packaging materials must be disposed of in the same manner as the product.
Recommendation: Disposal must be made according to official regulations.

Section 14 – Transport Information

UN Number
DOT, TDG, ADN, IMDG, IATA
Proper shipping name (Technical Name)
DOT, ADN, IMDG, IATA –

TDG –
Transport hazard class(es)
DOT, TDG, ADN, IMDG, IATA
Class –
Packing group
DOT, TDG, IMDG, IATA –
Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code: Not applicable.
Transport/Additional information: Not dangerous according to the above specifications.

Section 15 – Regulatory Information

National legislation
Safety, health and environmental regulations/legislation specific for the substance or mixture
Canadian Domestic Substance List (DSL): Substance is listed.
Canadian Ingredient Disclosure list (limit 0.1%): Substance is not listed.
Canadian Ingredient Disclosure list (limit 1%): Substance is not listed.
Canadian Non Domestic Substance List (NDSL): Substance is not listed.
Korea Existing Chemical Inventory (KECI): Substance is listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS): Substance is listed.
TSCA listing: Substance is listed.
Other regulations, limitations and prohibitive regulations: Comply with the legislation concerning equipment and protective systems intended for use in potentially explosive atmospheres.

Section 16 : Additional Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: Corporate EHSQ Perstorp Holding AB
Contact: Corporate EHSQ ·
* Data compared to the previous version altered.