SECTION 1. IDENTIFICATION

Product identifier

Trade name : PURAC® Powder 60

Recommended use of the chemical and restrictions on use

Recommended use : Intended for food use
Speciality chemical

Manufacturer or supplier's details

Company name of supplier : PURAC America Inc.
Address : 8250 Flint Street
Lenexa KS 66214
USA
Telephone : +18006694092
Telefax : +19138884970
E-mail address of person responsible for the SDS : sds@corbion.com

Initial Supplier Identifier
Données relatives au fournisseur
Univar Solutions Canada Ltd.
64 Arrow Road
North York, ON M9M 2L9
Telephone: 1-866-686-4827

Emergency telephone

CHEMTREC: +1 703-741-5970 / 1-800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Combustible dust : Category 1

Skin irritation : Category 2

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : May form combustible dust concentrations in air.
H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary Statements :

Prevention:

P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 + P310 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.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
L-(+)-lactic acid	L-(+)-lactic acid	CAS: 79-33-4 (alternative CAS: 50-21-5)	>= 60 - < 80
silica gel	silica gel	112926-00-8	>= 1 - < 5

* Actual chemical name, CAS number and/or concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Call a physician immediately.

If inhaled : If breathed in, move person into fresh air.

In case of skin contact : If on skin, rinse well with water.
Take off all contaminated clothing immediately.
If symptoms persist, call a physician.

In case of eye contact : Rinse immediately with plenty of water and seek medical advice.
If easy to do, remove contact lens, if worn.

If swallowed : Rinse mouth.
Do not induce vomiting. Drink water. Call physician immediately.

Most important symptoms and effects, both acute and delayed : Redness
Pain
Irritation
tearing
Gastrointestinal discomfort
Causes serious eye damage.
Causes skin irritation.

Notes to physician : Treat symptomatically.
In case of shortness of breath, give oxygen.
Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
Dry powder
Foam
Carbon dioxide (CO2)

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting : none
Exposure to decomposition products may be a hazard to health.

Further information : Use a water spray to cool fully closed containers.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire- : Use personal protective equipment.

fighters	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	Should not be released into the environment.
Methods and materials for containment and cleaning up	:	Collect as much of the spill as possible with a suitable absorbent material. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. To clean the floor and all objects contaminated by this material, use plenty of water.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Use only with adequate ventilation. Avoid inhalation, ingestion and contact with skin and eyes. Wear personal protective equipment. Do not breathe mist or vapors. Do not eat, drink or smoke when using this product. Wash skin thoroughly after handling. Wash contaminated clothing before reuse.
Conditions for safe storage	:	Keep containers tightly closed in a cool, well-ventilated place. Store locked up.
Further information on storage stability	:	Keep in a dry place. Stable under normal conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
silica gel	112926-00-8	TWA (Respirable)	1.5 mg/m3	CA BC OEL
		TWA (Total)	4 mg/m3	CA BC OEL
		TWAEV (respirable dust)	6 mg/m3	CA QC OEL

Personal protective equipment

Respiratory protection	:	Suitable respiratory equipment: Equipment should conform to CAN/CSA Standard Z94.4-11
Filter type	:	Particulates type
Hand protection		
Material	:	Nitrile rubber
Rate of permeability	:	> 480 min
Glove thickness	:	0.5 mm
Eye protection	:	Wear safety glasses or goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Skin and body protection	:	Long sleeved clothing Boots Chemical resistant apron
Protective measures	:	The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Color	:	white, light yellow
Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	3 - 4 (25 °C) Concentration: 100 g/l (as aqueous solution)
Melting point/range	:	152 - 156 °C
Boiling point/boiling range	:	No data available
Flash point	:	Not applicable
Flammability (solid, gas)	:	No data available
Self-ignition	:	> 530 °C
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapor pressure	:	No data available
Relative vapor density	:	Not applicable
Relative density	:	No data available
Density	:	400 kg/m3
Bulk density	:	400 kg/m3
Solubility(ies)		
Water solubility	:	140 g/l (25 °C)
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	> 200 °C
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable
Oxidizing properties	:	Not applicable
Particle size	:	No data available

Particle Size Distribution	:	No data available
Specific surface area	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	Extremes of temperature and direct sunlight. Direct heating, dirt, chemical contamination, sunlight, UV or ionizing radiation.
Incompatible materials	:	Oxidizing agents Bases Acids Metals
Hazardous decomposition products	:	toxic fumes Carbon dioxide (CO2) Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method

Components:

L-(+)-lactic acid:

Acute oral toxicity	:	LD50 Oral (Rat): 3,543 mg/kg Method: US EPA Test Guideline OPP 81-1
Acute inhalation toxicity	:	LC50 (Rat): > 7.94 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

silica gel:

Acute oral toxicity	:	LD50 Oral (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	Remarks: Not classified due to data which are conclusive although insufficient for classification.
Acute dermal toxicity	:	Remarks: Not classified due to data which are conclusive although insufficient for

classification.

Skin corrosion/irritation

Causes skin irritation.

Product:

Method	:	OECD Test Guideline 404
Result	:	Not corrosive
Result	:	Skin irritation
Remarks	:	Expert judgment

Components:

L-(+)-lactic acid:

Result	:	Corrosive after 1 to 4 hours of exposure

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Assessment	:	Risk of serious damage to eyes.
Remarks	:	Expert judgment

Components:

L-(+)-lactic acid:

Assessment	:	Risk of serious damage to eyes.

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

Not classified due to lack of data.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

Not classified due to lack of data.

STOT-repeated exposure

Not classified due to lack of data.

Aspiration toxicity

Not classified due to lack of data.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity	:	No data available
Chronic aquatic toxicity	:	No data available

Components:

L-(+)-lactic acid:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 130 mg/l Exposure time: 96 h Method: EPA-660/3-75-009
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 130 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Raphidocelis subcapitata (freshwater green alga)): > 3,500 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

silica gel:

Toxicity to fish	:	LC50: > 5,000 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Not classified
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 5,000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

Persistence and degradability

Components:

L-(+)-lactic acid:

Biodegradability	:	Result: Readily biodegradable.

silica gel:

Biodegradability	:	Remarks: Not applicable

Bioaccumulative potential

Components:

L-(+)-lactic acid:

Partition coefficient: n-octanol/water	:	log Pow: -0.54 Method: OECD Test Guideline 107

silica gel:

Partition coefficient: n-octanol/water	:	Remarks: Not applicable

Mobility in soil

Components:

L-(+)-lactic acid:

Stability in soil	:	Remarks: Will not adsorb on soil.

silica gel:

Stability in soil : Remarks: Not applicable

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.
Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

Domestic regulation

TDG
Not regulated as a dangerous good

International Regulations

UNRTDG
Not regulated as a dangerous good

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.

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

The ingredients of this product are reported in the following inventories:

DSL : This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.
calcium (S)-2-hydroxypropionate

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

CA BC OEL : Canada. British Columbia OEL
CA QC OEL : Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
CA BC OEL / TWA : 8-hour time weighted average
CA QC OEL / TWAEV : Time-weighted average exposure value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German

Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

Revision Date	:	05-Dec-2024 Separators: Comma is applied as a thousand separator; Dot is used as a decimal separator; Example 1,234,567.89

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