

LPS (Lipopolysaccharide) base

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 04 January 2023 Version: 2.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : LPS (Lipopolysaccharide) base
Product code : T-5065, N-5065, D-5065
Other means of identification : NP-LPS (Lipopolysaccharide) ; TNP-LPS

1.2. Recommended use and restrictions on use

See Section 15.1

1.3. Supplier

Biosearch Technologies, Inc
2199 South McDowell Boulevard
Petaluma, CA 94954-6904
U.S.A.

1.4. Emergency telephone number

Emergency number : 1-888-575-9695 (Monday-Friday, 8:00AM-5:00PM)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute Tox. 2 (Oral) H300

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H300 - Fatal if swallowed

Precautionary statements (GHS US) : P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+P310 - IF SWALLOWED: Immediately call poison center/doctor.
P330 - Rinse mouth.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Lipopolysaccharides, Escherichia coli	(CAS-No.) 93572-42-0	80 – 100

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*In accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200), the specific chemical identity or exact weight % has been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.
- First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention immediately.
- First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : Fatal if swallowed.
- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : May cause skin irritation.
- Symptoms/effects after eye contact : May cause eye irritation.
- Symptoms/effects after ingestion : Fatal if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Foam. Dry powder.
- Unsuitable extinguishing media : Carbon dioxide (CO₂). Water.

5.2. Specific hazards arising from the chemical

- Fire hazard : Not flammable.
- Explosion hazard : Product is not explosive.
- Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Eliminate all ignition sources if safe to do so.
- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Do not dispose of fire-fighting water in the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

6.1.1. For non-emergency personnel

- Protective equipment : Wear protective equipment as described in section 8.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

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6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Minimize generation of dust.

Methods for cleaning up : Scoop solid spill into closing conductive containers or conductive bags. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Keep container closed when not in use. Avoid contact with skin and eyes. Do not breathe dust. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container closed when not in use. Store in a dry, cool and well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Lipopolysaccharides, Escherichia coli (93572-42-0)		
ACGIH	Remark (ACGIH)	OELs not established
OSHA	Remark (OSHA)	OELs not established

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment symbol(s):



Personal protective equipment:

Gloves. Protective goggles. Protective clothing. Wear respiratory protection.

Hand protection:

Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection:

Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection:

Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

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Respiratory protection:

Use NIOSH (or other equivalent national standard) -approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Color	: Not applicable
Odor	: Not applicable
Odor threshold	: Not applicable
pH	: Not applicable
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: Not applicable
Flammability (solid, gas)	: Not applicable
Vapor pressure	: Not applicable
Relative vapor density at 20 °C	: Not applicable
Relative density	: Not applicable
Solubility	: Not applicable
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosion limits	: Not applicable
Explosive properties	: Not applicable
Oxidizing properties	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

Air contact. Moisture.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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Acute toxicity (oral)	: Fatal if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Lipopolysaccharides, Escherichia coli (93572-42-0)

LD50 oral rat	48.3 mg/kg (source: NLM_CIP)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: Not applicable
Symptoms/effects	: Fatal if swallowed.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: Fatal if swallowed.
Other information	: No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: No data available.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other adverse effects	: No data available.
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SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

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SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT)	: UN3462 Toxins, extracted from living sources, solid, n.o.s. (contains: Lipopolysaccharides, Escherichia coli), 6.1, II
UN-No.(DOT)	: UN3462
Proper Shipping Name (DOT)	: Toxins, extracted from living sources, solid, n.o.s. contains: Lipopolysaccharides, Escherichia coli
Class (DOT)	: 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132
Packing group (DOT)	: II - Medium Danger
Hazard labels (DOT)	: 6.1 - Poison



DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 25 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 100 kg
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
Emergency Response Guide (ERG) Number	: 153
Other information	: No supplementary information available.

Transport by sea (IMDG)

Transport document description (IMDG)	: UN 3462 TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (contains: Lipopolysaccharides, Escherichia coli), 6.1, II
UN-No. (IMDG)	: 3462
Proper Shipping Name (IMDG)	: TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.
Class (IMDG)	: 6.1 - Toxic substances
Packing group (IMDG)	: II - substances presenting medium danger
Limited quantities (IMDG)	: 500 g

Air transport (IATA)

Transport document description (IATA)	: UN 3462 Toxins, extracted from living sources, solid, n.o.s. (contains: Lipopolysaccharides, Escherichia coli), 6.1, II
UN-No. (IATA)	: 3462
Proper Shipping Name (IATA)	: Toxins, extracted from living sources, solid, n.o.s.
Class (IATA)	: 6.1 - Toxic Substances
Packing group (IATA)	: II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

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LGC claims research and development (R&D) exemption status under the Toxic Substances Control Act (TSCA) for this product. It may contain ingredients that are not on the TSCA inventory and only be used exclusively for research and development activities in accordance with the R&D exemption requirements under TSCA found at 40 CFR 720.36. It is the end-user's responsibility to understand and follow these requirements.

SARA Section 311/312 Hazard Classes

Health hazard - Acute toxicity (any route of exposure)

15.2. International regulations

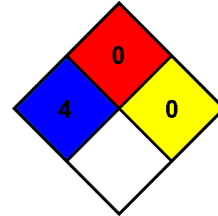
No additional information available

15.3. US State regulations

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

SECTION 16: Other information

Other information	: Author: JAD.
NFPA health hazard	: 4 - Materials that, under emergency conditions, can be lethal.
NFPA fire hazard	: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.
HMIS Hazard Rating	
Health	: 4
Flammability	: 0
Physical	: 0



Indication of changes:

Revision 1.0: New SDS Created.

This information is disclosed to the best of LGC's knowledge. Disposal should be in accordance with applicable regional, national and local laws and regulations.