SAFETY DATA SHEET

Revision Date 09-February-2025

Revision Number 1

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

1.1.1 Product Identification

Product Description: LIVAGEN

Cat No.: PEP083

CAS No No CAS Available
Molecular Formula EXPERIMENTAL

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

Recommended Use Laboratory chemicals.

Uses advised against No Information available

1.3 Details of the supplier of the safety data sheet

Company

Research Scientific Ltd 107-111 Ringwood Road

Christchurch

Dorset BH23 5RA

United Kingdom

Office Tel: +44 (0) 1202 155688

E-mail address support@researchscientific.co.uk

1.4 Emergency telephone number

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Emergency Number +44 (0) 1202 155688 // +44 (0) 7967 782399

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to GB-CLP Regulations UK SI-2019/720 and UK SI 2020/1567 Physical hazards

CLP Classification Based on the available data; the classification criteria are not met.

Health Hazards Based on the available data; the classification criteria are not met.

Environmental Hazards Based on the available data; the classification criteria are not met.

2.2 Classification of the substance or mixture

None Required

2.3 Other Hazards

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSTITION / INFORMATION ON INGREDIENTS

3.1 Substances

Component LIVAGEN

CAS Number No CAS Available

Weight <=100

CLP Classification N/A

^{**} For full text of hazard statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Eye Contact Rinse immediately with plenty of water, also under the

eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least

15 minutes. Get medical attention immediately if

symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty

of water. Get medical attention if symptoms occur.

Inhalation Remove to fresh air. Get medical attention

immediately if symptoms occur.

Self-Protection of the First Aider No special precautions required

4.2 Most important symptoms and effects, both acute and delayed

None reasonably foreseeable

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician – Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

No information available.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx).

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

Avoid dust formation.

6.2 Environmental precautions

Should not be released into the environment.

See Section 12 for additional Ecological Information.

6.3 Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

6.4 Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Store in freezer.

Technical Rules for Hazardous Substances (TRGS) 510 Class 11

Storage Class (LGK) (Germany)

7.3 Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region-specific regulatory bodies

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

No information available

Predicted No Effect Concentration (PNEC)

No information available.

8.2 Exposure controls

Engineering Measures

None under normal use conditions.

Personal protective equipment

Eye Protection

Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection

Protective gloves

Glove material Nitrile rubber, Neoprene, Natural rubber, PVC

Breakthrough time See manufacturers recommendations

Glove thickness N/A

EU standard EN 374

Glove comments Minimum Requirement

Skin and body protection

Long sleeved clothing.

Important Notes

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection No protective equipment is needed under normal use

conditions.

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136

approved respirator if exposure limits are exceeded or

if irritation or other symptoms are experienced

Recommended Filter type: Particle filter

Small scale/Laboratory use Maintain adequate ventilation

Environmental exposure controls No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Solid Lyophilized

Appearance White - Off-white

Odor No information available

Odor Threshold No data available

Melting Point/Range No data available

Softening Point No data available

Boiling Point/Range No information available

Flammability (liquid) Not Applicable

Flammability (solid, gas) No information available Solid

Explosion LimitsNo data available

Flash Point No information available

Autoignition Temperature No data available

Decomposition TemperatureNo data available

pH No information available

Viscosity Not Applicable Solid

Water Solubility No information available

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water) No data available

Vapor Pressure No data available

Density / Specific Gravity No data available

Bulk Density No data available

Vapor Density Not Applicable Solid

Particle characteristics No data available

9.2 Other Information

Molecular Formula EXPERIMENTAL

Molecular Weight No data available

Evaporation Rate Not Applicable Solid

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None known, based on information available

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

Hazardous Polymerization No information available.

Hazardous Reactions None under normal processing.

10.4 Conditions to avoid

Incompatible products. Excess heat.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

(a) acute toxicity:-

Oral No data available

Dermal No data available

Inhalation No data available

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization:-

Respiratory No data available

Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; Not applicable Solid

Symptoms / effects, both acute and delayed No information available.

11.2 Information on other hazards

Endocrine Disrupting PropertiesAssess endocrine disrupting properties

for human health. This product does not

contain any known or suspected

endocrine disruptors.

SECTION 12: STABILITY AND REACTIVITY

10.1 Reactivity None known, based on information

available

12.1 Toxicity

Ecotoxicity effectsContains no substances known to be

hazardous to the environment or that are not degradable in waste water

treatment plants.

12.2 Persistence and degradability

No information available

12.3 Bio accumulative potential No information available

12.4 Mobility in soilNo information available

12.5 Results of PBT and vPvB assessment No data available for assessment.

12.6 Endocrine disrupting properties

Endocrine Disruptor Information This product does not contain any

known or suspected endocrine

disruptors

12.7 Other adverse effects

Persistent Organic Pollutant This product does not contain any

known or suspected substance

Ozone Depletion Potential This product does not contain any

known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

10.1 Waste treatment methods

Waste from Residues/Unused

Products Chemical waste generators must

determine whether a discarded chemical is classified as a

hazardous waste. Consult local,

regional, and national hazardous waste regulations to ensure complete and accurate

classification.

Contaminated Packaging Empty remaining contents. Dispose

of in accordance with local

regulations. Do not re-use empty

containers.

European Waste Catalogue (EWC)According to the European Waste

Catalogue, Waste Codes are not product specific, but application

specific.

Other Information Waste codes should be assigned by

the user based on the application for

which the product was used.

SECTION 14: TRANSPORT INFORMATION

14.1 IMDG/IMONot regulated14.2 UN numberNot regulated14.3 UN proper shipping nameNot regulated14.4 Transport hazard class(es)Not regulated14.5 Packing groupNot regulated

14.6 Environmental hazards No hazards identified

14.7 Special precautions for user14.8 Maritime transport in bulk according to IMONo special precautions required.Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
	Number								
LIVAGEN	No CAS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Available								

Component	CAS	TSCA	TSCA	DSL	NDSL	AICS	NZIoC	PICCS
	Number		Inventory notification Active- Inactive					
LIVAGEN	No CAS Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Authorisation/Restrictions according to EU REACH

Component	CAS Number	REACH (1907/2006) Annex XIV - Substances Subject to Authorisation	REACH (1907/2006) Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 Candidate List of Substances of Very High Concern (SVHC)	
LIVAGEN	No CAS Available	N/A	N/A	N/A	

Seveso III Directive (2012/18/EC)

Component	CAS Number	Seveso III Directive (2012/18/EC) Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) Qualifying Quantities for Safety Report Requirements
LIVAGEN	No CAS Available	N/A	N/A

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

National Regulations

UK

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

Water endangering class = 3 (self-classification)

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

Legend

CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b)

Substances/EU List of Notified Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances

ENCS - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level RPE - Respiratory Protective Equipment

KECL - Korean Existing and Evaluated Chemical Substances

IARC - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC) **LD50** - Lethal Dose 50%

LC50 - Lethal Concentration 50% NOEC - No Observed Effect Concentration PBT - Persistent, Bio accumulative, Toxic

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol: Water vPvB - very Persistent, very Bio accumulative

ADR - European Agreement Concerning the International Carriage of

Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International **Transport Association**

MARPOL - International Convention for the Prevention of Pollution Ships

ATE - Acute Toxicity Estimate **VOC** - (Volatile Organic Compound)

TWA - Time Weighted Average

Key literature references and sources for data https://echa.europa.eu/information-on-

chemicals

Suppliers safety data sheet, Research Scientific Ltd

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Prepared By Health, Safety and Environmental Department

Revision Date 09-Feb-2025

New emergency telephone response service provider.

This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet