



Material Safety Data Sheet

Revision Date : 2023.06.27

Ver 2.1

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ASCE^{plus} Derma Signal Kit SRLV [Vial 1. LYOPHILIZED POWDER]

Company : ExoCoBio Inc.

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2. HAZARDS IDENTIFICATION

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Physical hazard : Not applicable

Health hazard : Not applicable

Environment hazard : Not applicable

Label elements including precautionary statements

Symbol / Signal word : Not applicable

Hazard statements / Precautionary statements : Not applicable

NFPA Rating

Health : 0

Flammability : 0

Reactivity : 0

Water reactivity : 0

3. COMPOSITION ON INGREDIENTS

No.	INCI Name	CAS No.
1	Water	7732-18-5
2	Rosa Damascena Callus Extracellular Vesicles	-
3	Methionine	63-68-3, 59-51-8
4	Trehalose	6138-23-4, 99-20-7
5	Mannitol	87-78-5, 69-65-8
6	Glutamine	56-85-9

7	Potassium Chloride	7447-40-7
8	Ascorbic Acid	50-81-7
9	Retinol	68-26-8, 11103-57-4
10	Magnesium Sulfate	10034-99-8
11	Glutathione	70-18-8
12	Nicotinamide Adenine Dinucleotide	53-84-9
13	Disodium Flavine Adenine Dinucleotide	146-14-5
14	Thiamine Diphosphate	154-87-0
15	Coenzyme A	85-61-0
16	sh-Oligopeptide-2	-
17	Acetyl Hexapeptide-8	616204-22-9
18	Nonapeptide-1	-
19	Palmitoyl Tetrapeptide-7	221227-05-0
20	Palmitoyl Tripeptide-1	-
21	sh-Oligopeptide-1	-
22	sh-Polypeptide-1	-
23	sh-Polypeptide-3	-
24	sh-Polypeptide-76	-
25	Copper Tripeptide-1	-
26	Palmitoyl Pentapeptide-4	214047-00-4, 521091-64-5
27	Alanine	56-41-7
28	Arginine	74-79-3
29	Aspartic Acid	56-84-8
30	Glutamic acid	56-86-0
31	Glycine	56-40-6
32	Histidine	71-00-1
33	Isoleucine	73-32-5
34	Leucine	61-90-5
35	Lysine HCL	10098-89-2
36	Ornithine HCL	3184-13-2
37	Phenylalanine	63-91-2
38	Proline	147-85-3
39	Serine	56-45-1
40	Threonine	72-19-5
41	Tryptophan	73-22-3
42	Tyrosine	60-18-4
43	Valine	72-18-4

4. FIRST AID MEASURES

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

In case of skin contact

Not applicable

If inhaled

If breathed in, move person into fresh air.

If not breathing, give artificial respiration.

If swallowed

Never give anything by mouth to an unconscious person.

Potential health effect

May be harmful if swallowed.

Other medical attention.

Medical personnel should be aware of the protective measures of the substance.

5. FIRE–FIGHTING MEASURES

Flammable properties

Flash point : No flash occurred under 93 °C (Rapid equilibrium method)

Autoignition temperature : No spontaneous combustion under 200 °C

Burning rate : Did not ignite. at 20 °C (UN TDG test & criteria – Test N1)

Suitable extinguisher

Water spray, alcohol–resistant foam, dry chemical, carbon dioxide

Specific hazards arising from the chemical

No data available

Special protective equipment for fire–fighters

Wear self–contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Do not eat, drink or smoke when using this product.

Environmental precautions

No data available

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not eat, drink or smoke when using this product.

Conditions for safe storage

Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameter

KOSHA : No data available

US ACGIH : No data available

General Measures : No special measures required.

Individual Protection Media : No special media required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : White Powder

pH : 4.0 ~ 6.0

Flash point : No flash occurred under 93 °C (Rapid equilibrium method)

Autoignition temperature : No spontaneous combustion under 200 °C

Water solubility : Soluble at 20 °C

Boiling point (Initial) : > 97 °C

Flammability

Burning rate : Did not ignite. at 20 °C

※ UN TDG test & criteria – Test N1

Explosive properties : No self-reaction hazard

※ UN TDG test & criteria – Test E3

Oxidizing properties : No oxidizing hazard

※ UN TDG test & criteria – Test O1

Melting range : No data available

Vapour pressure : No data available

Decomposition temperature : No data available

Partition coefficient (n-octanol/water) : No data available

Viscosity : No data available

Lower explosion limit / Upper explosion limit : No data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under general condition.

Conditions to avoid

Avoid inhalation of vapor, mist or gas.

Materials to avoid

Substances which, in contact with water, emit flammable gases

Hazardous decomposition products

Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral	rat	LD50 : > 2,000 mg/kg	※ from US NLM / ECHA
Inhalation	rat	LC50 : No data available	
Skin	rabbit	LD50 : No data available	

Skin irritation : Not applicable

Eye irritation : Not applicable

Respiratory sensitization : Not applicable

Skin sensitization : Not applicable

Germ cell mutagenicity : Not applicable

Carcinogenicity : Not applicable

Reproductive toxicity : Not applicable

Specific target organ toxicity – single exposure (GHS) : Not applicable

Specific target organ toxicity – repeated exposure (GHS) : Not applicable

Aspiration hazard : Not applicable

12. ECOLOGICAL INFORMATION

Toxicity

Fish	LC50 : No data available	※ from US NLM / ECHA
Crustacean	EC50 : No data available	

Algae EC50 : No data available

Persistence and degradability : No data available

Bioaccumulative potential : No data available

Mobility in soil : No data available

Other adverse effects : No data available

13. DISPOSAL CONSIDERATIONS

Disposal consideration

Observe all environmental regulations.

Disposal precaution

Keep in suitable, closed containers for disposal.

14. TRANSPORT INFORMATION

UN TDG : Not dangerous goods

IATA : Not dangerous goods

IMDG :Not dangerous goods

Marine pollution : Not applicable

Special precaution

Fire EmS Guide : F-A (Recommendation)

Spillage EmS Guide : Not dangerous goods

15. REGULATORY INFORMATION

Korea Industrial Safety and Health Act (GHS) : Not applicable

Korea Hazardous Materials Safety Control Act : Not hazardous material

Korea Chemicals Control Act : Not toxic chemical

Korea Persistent Organic Pollutants Control Act : Not applicable

US OSHA Hazards (GHS) : Not applicable

16. OTHER INFORMATION

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Acronyms and Websites

- ECHA : European chemical agency, <http://echa.europa.eu/>
- US NLM : U.S. National Library of Medicine, <http://chem.sis.nlm.nih.gov/chemidplus/>
- HSDB : US Hazardous Substances Data Bank, <http://toxnet.nlm.nih.gov/>
- CCRIS : US Chemical Carcinogenesis Research Information System, <http://toxnet.nlm.nih.gov/>
- IARC : International Agency for Research on Cancer, <http://monographs.iarc.fr/>
- JP NITE : Japan National Institute of Technology and Evaluation, <http://www.safe.nite.go.jp/>