

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 8.24

Revision Date 20.02.2025

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifiers**

Product name : Large Scale Metabolite Library

Product Number : LSMLS

Brand : Sigma

REACH No. :

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company :

1.4 Emergency telephoneEmergency Phone # : +(44)-870-8200418 (CHEMTREC (GB))
+(353)-19014670 (CHEMTREC Ireland)
001-803-017-9114 (CHEMTREC India)

This is a summary SDS for a kit. For the full SDS for each of the components listed in section 16 please visit our website.

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

| | |
|---|--|
| Acute toxicity, (Category 4) | H302: Harmful if swallowed. |
| Acute toxicity, (Category 2) | H330: Fatal if inhaled. |
| Acute toxicity, (Category 1) | H310: Fatal in contact with skin. |
| Skin corrosion, (Category 1) | H314: Causes severe skin burns and eye damage. |
| Serious eye damage, (Category 1) | H318: Causes serious eye damage. |
| Respiratory sensitization, (Category 1) | H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. |



| | |
|---|---|
| Skin sensitization, (Category 1) | H317: May cause an allergic skin reaction. |
| Germ cell mutagenicity, (Category 2) | H341: Suspected of causing genetic defects. |
| Carcinogenicity, (Category 1B) | H350: May cause cancer. |
| Reproductive toxicity, (Category 1A) | H360FD: May damage fertility. May damage the unborn child. |
| Effects on or via lactation | H362: May cause harm to breast-fed children. |
| Specific target organ toxicity - single exposure, (Category 2), Immune system | H371: May cause damage to organs. |
| Specific target organ toxicity - single exposure, (Category 3), Respiratory system | H335: May cause respiratory irritation. |
| Specific target organ toxicity - repeated exposure, (Category 1), Blood | H372: Causes damage to organs through prolonged or repeated exposure. |
| Specific target organ toxicity - repeated exposure, (Category 2), Thyroid, Cardio-vascular system, Kidney | H373: May cause damage to organs through prolonged or repeated exposure. |
| Specific target organ toxicity - repeated exposure, (Category 2) | H373: May cause damage to organs through prolonged or repeated exposure if swallowed. |
| Short-term (acute) aquatic hazard, (Category 1) | H400: Very toxic to aquatic life. |
| Long-term (chronic) aquatic hazard, (Category 1) | H410: Very toxic to aquatic life with long lasting effects. |

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal Word

Danger

Hazard Statements

H302

Harmful if swallowed.

H310 + H330

Fatal in contact with skin or if inhaled.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335

May cause respiratory irritation.



| | |
|---------------------------------------|--|
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer. |
| H360FD | May damage fertility. May damage the unborn child. |
| H362 | May cause harm to breast-fed children. |
| H371 | May cause damage to organs (Immune system). |
| H372 | Causes damage to organs (Blood) through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure if swallowed. |
| H373 | May cause damage to organs (Thyroid, Cardio-vascular system, Kidney) through prolonged or repeated exposure. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| Precautionary Statements | |
| P260 | Do not breathe dust. |
| P263 | Avoid contact during pregnancy and while nursing. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. |
| P304 + P340 + P310 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Supplemental Hazard Statements | none |

Reduced Labeling (<= 125 ml)

Pictogram



Signal Word Danger

Hazard Statements

| | |
|-------------|--|
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H317 | May cause an allergic skin reaction. |
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer. |
| H362 | May cause harm to breast-fed children. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H314 | Causes severe skin burns and eye damage. |
| H360FD | May damage fertility. May damage the unborn child. |
| H310 + H330 | Fatal in contact with skin or if inhaled. |

Precautionary Statements

| | |
|--------------------|--|
| P260 | Do not breathe dust. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. |
| P304 + P340 + P310 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. |



Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard
Statements

none

2.3 Other hazards - none

SECTION 3: Composition/information on ingredients

Refer to component SDS

SECTION 4: First aid measures

Refer to component SDS

SECTION 5: Firefighting measures

Refer to component SDS

SECTION 6: Accidental release measures

Refer to component SDS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage stability Recommended storage temperature
-20 °C

Storage class

Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

Refer to component SDS



SECTION 9: Physical and chemical properties

Refer to component SDS

SECTION 10: Stability and reactivity

Refer to component SDS

SECTION 11: Toxicological information

Refer to component SDS

SECTION 12: Ecological information

Refer to component SDS

SECTION 13: Disposal considerations

Refer to component SDS

SECTION 14: Transport information**14.1 UN number**

ADR/RID: 3316

IMDG: 3316

IATA: 3316

14.2 UN proper shipping name

ADR/RID: CHEMICAL KIT

IMDG: CHEMICAL KIT

IATA: Chemical kit

14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

Further information : No data available

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.



SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Refer to component SDS

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Kit Components:

| | | | |
|-------------------------------|-------|---------|---|
| LSMLS Plate 1 (Water Soluble) | Sigma | LSMLS01 | Skin Irrit. 2; Eye Dam. 1; H315, H318 |
| LSMLS Plate 2 (Water Soluble) | Sigma | LSMLS02 | Acute Tox. 4; Acute Tox. 2; Skin Irrit. 2; Eye Dam. 1; Resp. Sens. 1; Skin Sens. 1; Muta. 2; Repr. 1B; H302, H315, H317, H318, H330, H334, H341, H360D |
| LSMLS Plate 3 (Water Soluble) | Sigma | LSMLS03 | Skin Irrit. 2; Eye Dam. 1; Resp. Sens. 1; Skin Sens. 1; Aquatic Chronic 2; H315, H317, H318, H334, H411 |
| LSMLS Plate 4 (Water Soluble) | Sigma | LSMLS04 | Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1; Repr. 1B; STOT SE 2; H315, H317, H318, H360FD, H371 |
| LSMLS Plate 5 (Water Soluble) | Sigma | LSMLS05 | Acute Tox. 4; Skin Corr. 1; Eye Dam. 1; Skin Sens. 1; Muta. 2; Carc. 1B; Repr. 1A; STOT SE 3; STOT RE 1; Aquatic Chronic 3; H302, H314, H317, H335, H341, H350, H360D, H372, H412 |
| LSMLS Plate 6 (Lipophilic) | Sigma | LSMLS06 | Acute Tox. 1; Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1; Muta. 2; Carc. 2; Aquatic Chronic 2; H310, H315, H317, H318, H341, H351, H411 |
| LSMLS Plate 7 (Lipophilic) | Sigma | LSMLS07 | Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1; Muta. 2; Carc. 1B; Repr. 1A; Lact. ; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H315, H317, H318, H332, H341, H350, H360FD, H362, H373, H373, H410 |



Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

Classification of the mixture

| | |
|--------------|--------|
| Acute Tox.4 | H302 |
| Acute Tox.2 | H330 |
| Acute Tox.1 | H310 |
| Skin Corr.1 | H314 |
| Eye Dam.1 | H318 |
| Resp. Sens.1 | H334 |
| Skin Sens.1 | H317 |
| Muta.2 | H341 |
| Carc.1B | H350 |
| Repr.1A | H360FD |
| Lact. | H362 |
| STOT SE2 | H371 |
| STOT SE3 | H335 |
| STOT RE1 | H372 |

Classification procedure:

| |
|--------------------|
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |
| Calculation method |
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| Calculation method |



| | | |
|------------------|------|--------------------|
| STOT RE2 | H373 | Calculation method |
| STOT RE2 | H373 | Calculation method |
| Aquatic Acute1 | H400 | Calculation method |
| Aquatic Chronic1 | H410 | Calculation method |

Further information

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The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.


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Kit Components:


| LSMLS Plate 1 (Water Soluble) | | | | | |
|-------------------------------|---|-------------|---|--|--------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information |
| Sigma - LSMLS01 |  | Danger | Causes skin irritation. Causes serious eye damage. | Wash skin thoroughly after handling. IF ON SKIN: Wash with plenty of water. Wear protective gloves/ eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse. | |

| LSMLS Plate 2 (Water Soluble) | | | | | |
|-------------------------------|---|-------------|--|--|--------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information |
| Sigma - LSMLS02 |  | Danger | Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Fatal if inhaled. May cause | Do not handle until all safety precautions have been read and understood. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Wear protective | |





| | | | | | |
|--|--|--|---|--|--|
| | | | allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May damage the unborn child. | gloves/ protective clothing/ eye protection/ face protection. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | |
|--|--|--|---|--|--|

LSMLS Plate 3 (Water Soluble)

| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information |
|--------------------|---|-------------|---|---|--------------------------|
| Sigma - LSMLS03 |  | Danger | Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Toxic to aquatic life with long lasting effects. | Avoid breathing dust. IF ON SKIN: Wash with plenty of water. Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Avoid release to the environment. Wear protective gloves/ eye protection/ face protection. | |




| LSMLS Plate 4 (Water Soluble) | | | | | |
|--------------------------------------|---|-------------|---|---|--------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information |
| Sigma - LSMLS04 |  | Danger | <p>Causes skin irritation.</p> <p>May cause an allergic skin reaction.</p> <p>Causes serious eye damage.</p> <p>May damage fertility. May damage the unborn child.</p> <p>May cause damage to organs (Immune system).</p> | <p>Do not handle until all safety precautions have been read and understood.</p> <p>IF ON SKIN: Wash with plenty of water. Do not breathe dust. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF exposed or concerned: Call a POISON CENTER/ doctor.</p> | |


| LSMLS Plate 5 (Water Soluble) | | | | | |
|--------------------------------------|---|-------------|---|--|--------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information |
| Sigma - LSMLS05 |  | Danger | <p>Harmful if swallowed.</p> <p>Causes severe skin burns and eye damage.</p> <p>May cause an allergic skin reaction.</p> <p>May cause respiratory irritation.</p> <p>Suspected of causing genetic defects.</p> <p>May cause cancer.</p> <p>May damage the unborn child.</p> | <p>Do not breathe dust. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Avoid release to the environment. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call</p> | |



| | | | | | |
|--|--|--|--|---|--|
| | | | Causes damage to organs (Blood) through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects. | a POISON CENTER/ doctor. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | |
|--|--|--|--|---|--|

| LSMLS Plate 6 (Lipophilic) | | | | | |
|----------------------------|--|-------------|--|--|--------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information |
| Sigma - LSMLS06 |  | Danger | <p>Fatal in contact with skin.</p> <p>Causes skin irritation.</p> <p>May cause an allergic skin reaction.</p> <p>Causes serious eye damage.</p> <p>Suspected of causing genetic defects.</p> <p>Suspected of causing cancer.</p> <p>Toxic to aquatic life with long lasting effects.</p> | <p>Do not handle until all safety precautions have been read and understood.</p> <p>IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor. Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> | |



| LSMLS Plate 7 (Lipophilic) | | | | | |
|----------------------------|---|-------------|---|---|--------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information |
| Sigma - LSMLS07 |  | Danger | <p>Causes skin irritation.</p> <p>May cause an allergic skin reaction.</p> <p>Causes serious eye damage.</p> <p>Harmful if inhaled.</p> <p>Suspected of causing genetic defects.</p> <p>May cause cancer.</p> <p>May damage fertility. May damage the unborn child.</p> <p>May cause harm to breast-fed children.</p> <p>May cause damage to organs through prolonged or repeated exposure if swallowed.</p> <p>May cause damage to organs (Thyroid, Cardio-vascular system, Kidney) through prolonged or repeated exposure.</p> <p>Very toxic to aquatic life with long lasting effects.</p> | <p>Avoid contact during pregnancy and while nursing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Avoid release to the environment. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF exposed or concerned: Get medical advice/ attention.</p> | |

