



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 8.4

Revision Date 02.07.2024

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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 : Phytochemical Metabolite Library Of Standards

Product Number : PHYTOMLS

Brand : Sigma

REACH No. : This product is a mixture. REACH Registration Number see section 3.

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

Identified uses : Laboratory chemicals, Manufacture of substances

Uses advised against : For R&D use only. Not for pharmaceutical, household or other uses.

1.3

CHEMIKART

1.4 Emergency telephone

Emergency Phone # : 000 800 1007 141 (CHEMTREC)

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

Flammable liquids, (Category 2) H225: Highly flammable liquid and vapor.

Acute toxicity, (Category 1) H300: Fatal if swallowed.

Acute toxicity, (Category 1) H330: Fatal if inhaled.

Acute toxicity, (Category 1)	H310: Fatal in contact with skin.
Skin corrosion, (Sub-category 1B)	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 1A)	H340: May cause genetic defects.
Carcinogenicity, (Category 1B)	H350: May cause cancer.
Reproductive toxicity, (Category 1B)	H360Df: May damage the unborn child. Suspected of damaging fertility.
Specific target organ toxicity - single exposure, (Category 2), Central nervous system	H371: May cause damage to organs.
Specific target organ toxicity - single exposure, (Category 2), Lungs	H371: May cause damage to organs if inhaled.
Specific target organ toxicity - single exposure, (Category 3), Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - single exposure, (Category 3), Central nervous system	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure, (Category 1)	H372: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard, (Category 1)	H304: May be fatal if swallowed and enters airways.
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	
H225	Highly flammable liquid and vapor.
H300 + H310 + H330	Fatal if swallowed, in contact with skin or if inhaled.
H304	May be fatal if swallowed and enters airways.
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.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H371	May cause damage to organs (Central nervous system).
H371	May cause damage to organs (Lungs) if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
Precautionary Statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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.

H340	May cause genetic defects.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H300 + H310 + H330	Fatal if swallowed, in contact with skin or if inhaled.
Precautionary Statements	
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

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. Keep away from heat and sources of ignition. 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): 3: Flammable liquids

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

Tunnel restriction code : (E)

Further information : No data available

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:

Phytochemical

PHYTOMLS-

PHYTOMLS-01

Flam. Liq. 3; Acute Tox. 2; Acute

Metabolite Library Of Standards Plate 1 (Ethanol Soluble)	01-1EA		Tox. 1; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Resp. Sens. 1; Skin Sens. 1; Muta. 2; Carc. 2; Repr. 1B; STOT SE 2; STOT SE 3; Asp. Tox. 1; Aquatic Acute 1; Aquatic Chronic 1; H226, H300 + H330, H304, H311, H314, H317, H334, H335, H341, H351, H360Df, H371, H410
Phytochemical Metabolite Library Of Standards Plate 2 (Ethanol Soluble)	PHYTOMLS-02-1EA	PHYTOMLS-02	Flam. Liq. 3; Acute Tox. 2; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1; Muta. 2; Carc. 2; Repr. 2; STOT SE 2; STOT SE 3; STOT RE 1; Asp. Tox. 1; Aquatic Acute 1; Aquatic Chronic 1; H226, H300 + H310 + H330, H304, H314, H317, H335, H341, H351, H361f, H371, H372, H410
Phytochemical Metabolite Library Of Standards Plate 3 (Water Soluble)	PHYTOMLS-03-1EA	PHYTOMLS-03	Flam. Liq. 2; Acute Tox. 2; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1; Muta. 1A; Carc. 1B; Repr. 2; STOT SE 3; STOT RE 1; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H225, H300 + H330, H311, H314, H317, H335, H340, H350, H361f, H372, H373, H373, H410
Phytochemical Metabolite Library Of Standards Plate 4 (Water And Methanol Soluble)	PHYTOMLS-04-1EA	PHYTOMLS-04	Flam. Liq. 2; Acute Tox. 1; Acute Tox. 2; Acute Tox. 1; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1; Carc. 1B; Repr. 2; STOT SE 3; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 2; H225, H300 + H310 + H330, H314, H317, H335, H336, H350, H361f, H372, 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

Flam. Liq.2	H225
Acute Tox.1	H300
Acute Tox.1	H330
Acute Tox.1	H310
Skin Corr.1B	H314
Eye Dam.1	H318
Resp. Sens.1	H334
Skin Sens.1	H317
Muta.1A	H340
Carc.1B	H350
Repr.1B	H360Df

Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

STOT SE2	H371	Calculation method
STOT SE2	H371	Calculation method
STOT SE3	H335	Calculation method
STOT SE3	H336	Calculation method
STOT RE1	H372	Calculation method
Asp. Tox.1	H304	Calculation method
Aquatic Acute1	H400	Calculation method
Aquatic Chronic1	H410	Calculation method

Further information

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:

Phytochemical Metabolite Library Of Standards Plate 1 (Ethanol Soluble)					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
PHYTOMLS-01-1EA - PHYTOMLS-01		Danger	<p>Flammable liquid and vapor.</p> <p>Fatal if swallowed or if inhaled.</p> <p>May be fatal if swallowed and enters airways.</p> <p>Toxic in contact with skin.</p> <p>Causes severe skin burns and eye damage.</p> <p>May cause an allergic skin reaction.</p> <p>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>May cause respiratory irritation.</p> <p>Suspected of causing genetic defects.</p> <p>Suspected of causing cancer.</p> <p>May damage the unborn child.</p> <p>Suspected of damaging fertility.</p> <p>May cause damage to organs (Lungs) if inhaled.</p>	<p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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</p>	

			Very toxic to aquatic life with long lasting effects.	easy to do. Continue rinsing.	
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Phytochemical Metabolite Library Of Standards Plate 2 (Ethanol Soluble)					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
PHYTOMLS-02-1EA - PHYTOMLS-02		Danger	Flammable liquid and vapor. Fatal if swallowed, in contact with skin or if inhaled. May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. Suspected of causing genetic defects. Suspected of causing cancer. Suspected of damaging fertility. May cause damage to organs (Central nervous system). Causes damage to organs through prolonged or repeated exposure if swallowed. Very toxic to aquatic life with long lasting effects.	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.	
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Phytochemical Metabolite Library Of Standards Plate 3 (Water Soluble)					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
PHYTOMLS-03-1EA - PHYTOMLS-03		Danger	<p>Highly flammable liquid and vapor.</p> <p>Fatal if swallowed or if inhaled.</p> <p>Toxic in contact with skin.</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>May cause genetic defects.</p> <p>May cause cancer.</p> <p>Suspected of damaging fertility.</p> <p>Causes damage to organs (Peripheral nervous system) through prolonged or repeated exposure if swallowed.</p> <p>May cause damage to organs through prolonged or repeated exposure.</p> <p>May cause damage to organs (Blood, Liver, Kidney) through prolonged or repeated</p>	<p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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 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.</p>	

			exposure if swallowed. Very toxic to aquatic life with long lasting effects.		
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Phytochemical Metabolite Library Of Standards Plate 4 (Water And Methanol Soluble)					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
PHYTOMLS-04-1EA - PHYTOMLS-04		Danger	Highly flammable liquid and vapor. Fatal if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May cause drowsiness or dizziness. May cause cancer. Suspected of damaging fertility. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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 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.	
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