

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.22

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 (International)

Product Number : LSMLSINT

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

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

### 1.3

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### 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

Acute toxicity, (Category 4) H302: Harmful if swallowed.

Acute toxicity, (Category 2) H330: Fatal if inhaled.

Skin corrosion, (Category 1) H314: Causes severe skin burns and eye damage.

Serious eye damage, (Category 1) H318: Causes serious eye damage.

Respiratory sensitization, H334: May cause allergy or asthma

|                                                                                                           |                                                                          |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| (Category 1)                                                                                              | 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 1B)                                                                      | H360FD: May damage fertility. May damage the unborn child.               |
| 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. |
| Long-term (chronic) aquatic hazard, (Category 2)                                                          | H411: 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.                                                      |
| H314              | Causes severe skin burns and eye damage.                                   |
| H317              | May cause an allergic skin reaction.                                       |
| H330              | Fatal if inhaled.                                                          |
| 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.                         |
| 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 (Thyroid, Cardio-vascular system,               |

|                                |                                                                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| H411                           | Kidney) through prolonged or repeated exposure.<br>Toxic to aquatic life with long lasting effects.                              |
| Precautionary Statements       |                                                                                                                                  |
| P273                           | Avoid release to the environment.                                                                                                |
| P280                           | Wear protective gloves/ protective clothing/ eye protection/ face protection.                                                    |
| P301 + P312                    | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.                                                                   |
| 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              |                                                                                                                                  |
| H330                           | Fatal if inhaled.                                                                                                                |
| 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.                                                                                                                |
| 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.                                                                               |
| Precautionary Statements       |                                                                                                                                  |
| 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

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## SECTION 3: Composition/information on ingredients

Refer to component SDS

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## **SECTION 4: First aid measures**

Refer to component SDS

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## **SECTION 5: Firefighting measures**

Refer to component SDS

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## **SECTION 6: Accidental release measures**

Refer to component SDS

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## **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.

#### **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. 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

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## **SECTION 8: Exposure controls/personal protection**

Refer to component SDS

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## **SECTION 9: Physical and chemical properties**

Refer to component SDS

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## **SECTION 10: Stability and reactivity**

Refer to component SDS

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**SECTION 11: Toxicological information**

Refer to component SDS

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**SECTION 12: Ecological information**

Refer to component SDS

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**SECTION 13: Disposal considerations**

Refer to component SDS

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**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

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable for product as supplied.

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**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

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**SECTION 16: Other information****Kit Components:**

|                                        |       |          |                                                                                                                                                                  |
|----------------------------------------|-------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Large Scale Metabolite Library Plate 1 | Sigma | LSMLS-01 | Skin Irrit. 2; Eye Dam. 1; H315, H318                                                                                                                            |
| Large Scale Metabolite Library Plate 2 | Sigma | LSMLS-02 | 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           |
| Large Scale Metabolite Library Plate 3 | Sigma | LSMLS-03 | Skin Irrit. 2; Eye Dam. 1; Resp. Sens. 1; Skin Sens. 1; H315, H317, H318, H334                                                                                   |
| Large Scale Metabolite Library Plate 4 | Sigma | LSMLS-04 | Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1; Repr. 1B; STOT SE 2; STOT SE 3; H315, H317, H318, H335, H360FD, H371                                                    |
| Large Scale Metabolite Library Plate 5 | Sigma | LSMLS-05 | Acute Tox. 4; Skin Corr. 1; Eye Dam. 1; Skin Sens. 1; Muta. 2; Carc. 1B; STOT SE 3; STOT RE 1; Aquatic Chronic 3; H302, H314, H317, H335, H341, H350, H372, H412 |
| Large Scale Metabolite Library Plate 7 | Sigma | LSMLS-07 | Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1; Carc. 2; Repr. 1B; STOT RE 2; Aquatic Chronic 2; H315, H317, H318, H351, H360D, H373, H411                              |

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## 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   |
| Skin Corr.1      | H314   |
| Eye Dam.1        | H318   |
| Resp. Sens.1     | H334   |
| Skin Sens.1      | H317   |
| Muta.2           | H341   |
| Carc.1B          | H350   |
| Repr.1B          | H360FD |
| STOT SE2         | H371   |
| STOT SE3         | H335   |
| STOT RE1         | H372   |
| STOT RE2         | H373   |
| Aquatic Chronic2 | H411   |

### Classification procedure:

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

**Further information**

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## Kit Components:

| Large Scale Metabolite Library Plate 1 |           |             |                                                       |                                                                                                                                                                                                                                                                                                                                                                                          |                          |
|----------------------------------------|-----------|-------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Product identifier                     | Pictogram | Signal Word | Hazard Statements                                     | Precautionary Statements                                                                                                                                                                                                                                                                                                                                                                 | Supplemental information |
| Sigma - LSMLS-01                       |           | Danger      | Causes skin irritation.<br>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. |                          |

| Large Scale Metabolite Library Plate 2 |           |             |                                                                                                                                                          |                                                                                                                                                          |                          |
|----------------------------------------|-----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Product identifier                     | Pictogram | Signal Word | Hazard Statements                                                                                                                                        | Precautionary Statements                                                                                                                                 | Supplemental information |
| Sigma - LSMLS-02                       |           | Danger      | Harmful if swallowed.<br>Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye damage.<br>Fatal if inhaled.<br>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. |  |
|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

### Large Scale Metabolite Library Plate 3

| Product identifier | Pictogram | Signal Word | Hazard Statements                                                                                                                                                  | Precautionary Statements                                                                                                                                                                                                                                                                                                            | Supplemental information |
|--------------------|-----------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Sigma - LSMLS-03   |           | 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. | Avoid breathing mist or vapors. 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. Contaminated work clothing should not be allowed out of the workplace. Wear protective |                          |

|  |  |  |  |                                          |  |
|--|--|--|--|------------------------------------------|--|
|  |  |  |  | gloves/ eye protection/ face protection. |  |
|--|--|--|--|------------------------------------------|--|

#### Large Scale Metabolite Library Plate 4

| Product identifier | Pictogram | Signal Word | Hazard Statements                                                                                                                                                                                                                       | Precautionary Statements                                                                                                                                                                                                                                                                                                                                                                                                    | Supplemental information |
|--------------------|-----------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Sigma - LSMLS-04   |           | Danger      | Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye damage.<br>May cause respiratory irritation.<br>May damage fertility. May damage the unborn child.<br>May cause damage to organs (Immune system). | Do not handle until all safety precautions have been read and understood.<br>IF ON SKIN: Wash with plenty of water. Do not breathe mist or vapors.<br>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. |                          |

#### Large Scale Metabolite Library Plate 5

| Product identifier | Pictogram | Signal Word | Hazard Statements                                                                                                                                                                       | Precautionary Statements                                                                                                                                                          | Supplemental information |
|--------------------|-----------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Sigma - LSMLS-05   |           | Danger      | Harmful if swallowed.<br>Causes severe skin burns and eye damage.<br>May cause an allergic skin reaction.<br>May cause respiratory irritation.<br>Suspected of causing genetic defects. | Avoid release to the environment. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF |                          |

|  |  |  |                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                      |  |
|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  |  | <p>May cause cancer.</p> <p>Causes damage to organs (Blood) through prolonged or repeated exposure.</p> <p>Harmful to aquatic life with long lasting effects.</p> | <p>ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> |  |
|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

#### Large Scale Metabolite Library Plate 7

| Product identifier | Pictogram | Signal Word | Hazard Statements                                                                                                                                                                                                                                                                                                                                                | Precautionary Statements                                                                                                                                                                                                                                                                                                                                            | Supplemental information |
|--------------------|-----------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Sigma - LSMLS-07   |           | Danger      | <p>Causes skin irritation.</p> <p>May cause an allergic skin reaction.</p> <p>Causes serious eye damage.</p> <p>Suspected of causing cancer.</p> <p>May damage the unborn child.</p> <p>May cause damage to organs (Thyroid, Cardio-vascular system, Kidney) through prolonged or repeated exposure.</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. 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</p> |                          |

|  |  |  |  |                                                                                 |  |
|--|--|--|--|---------------------------------------------------------------------------------|--|
|  |  |  |  | protection. IF<br>exposed or<br>concerned: Get<br>medical advice/<br>attention. |  |
|--|--|--|--|---------------------------------------------------------------------------------|--|

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