



Safety Data Sheet

Last Revised: 16/07/2021

1. IDENTIFICATION

Product name: Buffer Sox3 of Sox DNA Extraction Kit

Product use: Used as a component of Sox DNA Extraction Kit

Supplier: Metagenom Bio Life Science, 550 Parkside Dr Unit A9, Waterloo, ON N2L 5V4, Canada, (844)973-4363

Manufacturer: Vivantis Technologies Sdn Bhd (A member of Revongen Corporation)
Level 1, Enterprise 2, Technology Park Malaysia, Lebuhraya Puchong-Sg Besi, 57000 Bukit Jalil, Kuala Lumpur, Malaysia
+603-3359 1166

2. HAZARD IDENTIFICATION

GHS Classification

Acute toxicity (Oral): Category 3

Serious eye damage: Category 1

Chronic aquatic toxicity: Category 3

GHS Label elements

Signal word: Warning

Pictograms





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Hazard statements

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H318 Causes serious eye damage

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Precautionary statements - prevention

P273 Avoid release to the environment.

P280 Wear protective gloves/eye protection/face protection.

Precautionary statements - response

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Labelling of packages where the contents do not exceed 125 ml

Pictograms



H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.



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H318 Causes serious eye damage

P280 Wear protective gloves/eye protection/face protection.

EUH032 Contact with acids liberates very toxic gas.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

COMPOSITION/INGREDIENT INFORMATION

Substance / Mixture: Mixture

Substance Name: **Buffer Sox3 component 3 of the Sox DNA extraction kit**

Hazardous ingredients:

Chemical name	CAS-No.	Concentration (% w/w)
Guanidine thiocyanate	593-84-0	>= 50 - <70

FIRST AID MEASURES

General advice: Move out of the dangerous area. Show this material safety data sheet to the doctor in attendance.

If inhaled: If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

In case of eye contact: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses. Protect unharmed eyes.

If swallowed: If accidentally swallowed, obtain immediate medical attention. Rinse mouth with water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Harmful if swallowed. Causes serious eye damage.



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Notes to physician: No information available.

FIRE-FIGHTING MEASURES

Flashpoint: None

Auto-ignition Temperature: Not determined

Explosive limits: LEL: not applicable UEL: not applicable

Extinguishing Media: Use media suitable for surrounding fire

Unusual Fire or Explosion hazards: None known

Hazardous Combustion Products: carbon oxides, sulfur oxides, nitrogen oxides, hydrogen cyanide

Fire Fighting Instructions: Wear self contained breathing apparatus for fire fighting

ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Ensure adequate ventilation. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

Unsuitable cleaning agents: sodium hypochlorite (bleach). Mixing with bleach will cause the release of hydrogen cyanide gas, a poisonous gas.

HANDLING AND STORAGE

Storage: Store in original container in a cool, well-ventilated, dry area at temperature between 4°C and 25°C. Keep in tightly closed containing

Handling: Avoid contact with eyes. Use in well ventilated areas. Wash thoroughly after handling. Avoid breathing of vapors. Avoid contact with skin.

EXPOSURE CONTROLS/PERSONAL PROTECTION



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Respiratory Protection: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved respirator. Special ventilation is not required for normal handling and use of this product when following the label requirements.

Skin Protection: Gloves should be worn to prevent repeated or prolonged contact with the liquid.

Eye Protection: Use safety glasses. Ensure fit is good. Use face shield when handling large volumes of the solution

Note: After handling product practice general hygiene. Wash hands and face with soap and water before smoking, drinking or eating.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: clear liquid

Color: clear

Odor: No data available

Odor Threshold: No data available

pH: 6.5

Melting point/range: No data available

Boiling point/boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Burning rate: No data available

Upper explosion limit: No data available

Lower explosion limit: No data available

Vapor pressure: No data available

Relative vapor density: No data available

Relative density: No data available

Density: no data available

Solubility(ies)



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Water solubility: soluble

Solubility in other solvents: No data available

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

Autoignition temperature: No data available

Decomposition temperature: No data available

Viscosity

Viscosity, dynamic: No data available

Viscosity, kinematic: No data available

Explosive properties: No data available

Oxidizing properties: No data available

STABILITY AND REACTIVITY

Stability: Stable if stored as directed. Hazardous decomposition products formed during fire

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: Oxides of Carbon , sulfur oxides, nitrogen oxides

Incompatibility: Thiocyanates can give off poisonous gas when exposed to strong acids or sodium hypochlorite. Hydrogen cyanide can be released. Keep away from strong acids, bases, and oxidizing agents.

TOXICOLOGY INFORMATION

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity: No data available

Acute toxicity estimate: 912 mg/kg

Method: Calculation method

Acute inhalation toxicity: No data available

Ingredients:



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guanidinium thiocyanate:

Acute oral toxicity: LD50 Oral (Rat): 593 mg/kg

Skin corrosion/irritation: Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity



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Not classified based on available information.

Further information

No data available

ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish: No data available

Toxicity to algae: No data available

Toxicity to bacteria: No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Bioaccumulation: No data available

Mobility in soil: No data available

Other adverse effects

Product:

Ozone-Depletion Potential:

Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information: No data available

Ingredients: guanidinium thiocyanate:

Toxicity to daphnia and other aquatic invertebrates:



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EC50 (Daphnia): 42.4 mg/l

Exposure time: 48 h

DISPOSAL CONSIDERATIONS

Dispose of unused product and waste effluents in accordance with provincial/state and local waste disposal regulations. Chemical additions or other alterations of this product may invalidate any disposal information in this safety data sheet. Consult local waste regulators for proper disposal. This product should not be allowed to enter drains.

TRANSPORT INFORMATION

This product is not regulated as a hazardous material for transportation within the US and Canada by any means of transportation SECTION 14. TRANSPORT INFORMATION

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

REGULATORY INFORMATION

The information provided in this Material Safety Data Sheet has been compiled in good faith and is believed to be accurate. No warranty, expressed or implied regarding the completeness or continuing accuracy of the information contained herein, and Metagenom Bio Inc disclaims all liability for reliance thereon. It is the user's responsibility to determine the suitability of this information for the adoption of safety precautions as may be necessary to comply with all Federal, Provincial or State and Local laws and regulations.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity



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This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Acute health hazard

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

OTHER INFORMATION

List of Abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ASTM - American Society for the Testing of Materials; bw - Body weight; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; 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; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; 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; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; EHS - Extremely Hazardous Substance; HMIS - Hazardous Materials Identification System; MSHA - Mine Safety and Health Administration; NFPA - National Fire Protection Association; RCRA - Resource Conservation and Recovery Act; RQ - Reportable Quantity; SARA - Superfund Amendments and Reauthorization Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice; ERG - Emergency Response Guide; NTP - National Toxicology Program; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods

Prepared by: John Heil



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This information may not be adequate for every application. The user should satisfy himself that he has all current data relevant to his particular use.