# SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### Contact information

**General**

Genapsys, Inc.
200 Cardinal Way, 3rd Floor
Redwood City, CA 94063
Phone: +1 (650) 330-1096
E-mail: support@genapsys.com

**Emergency telephone number**

Chemtrec *(24-hour availability):*
+1 (800) 424-9300 (USA and Canada)
+1 (703) 527-3887 (International; collect calls accepted)

### Product identifier

G3 Sequencing Kit V3 (Box 3) - PN 1001454

### Synonyms

Sequencing Kit - Box 3 - Cleaning solution

### Trade names

G3 Sequencing Kit V3 (Box 3)

### Chemical family

Mixture

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

For research use only (RUO).

### Note

The physical, chemical, toxicological and ecological properties of this product/mixture have not been fully characterized. This SDS will be revisited as more data become available.

## SECTION 2 - HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**Globally Harmonized System [GHS]**

Skin sensitizer - Category 1.

**Other/Supplemental**

Mixture not yet fully tested.
SECTION 2 - HAZARDS IDENTIFICATION …continued

GHS hazard pictogram

GHS signal word
Warning

GHS hazard statements
H317 - May cause allergic skin reaction.

GHS precautionary statements
P261 - Avoid breathing mist or vapor. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/eye protection/ face protection. P302 + P352 - IF ON SKIN: Wash with plenty of soap and water. P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention. P363 - Wash contaminated clothing before reuse. P501 - Dispose of contents/container to location in accordance with local/regional/national/international regulations.

Other hazards
No data were available for the mixture. The following data describe the hazards of individual ingredients, where applicable. Product/mixture contains methyl-chloro-isothiazolinone/2-methyl-2H-isothiazol-3-one ("Kathon"), which are associated with skin sensitizing effects at levels as low as 0.0015%.

Note
This mixture is classified as hazardous under GHS as implemented by Regulation EC No 1272/2008 (EU CLP), WHMIS 2015 (Health Canada), and Hazard Communication Standard No. 1910.1200 (US OSHA).

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>EINECS/ELIN CS#</th>
<th>Amount</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>9002-93-1</td>
<td>618-344-0</td>
<td>&lt;0.1%</td>
<td>ATO4: H302;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SI2: H315;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EI2: H319;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AA1: H400</td>
</tr>
<tr>
<td>2-Methyl-2H-isothiazol-3-one</td>
<td>2682-20-4</td>
<td>220-239-6</td>
<td>0.000575%</td>
<td>ATO4: H302;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SC1: H314;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ED1: H318;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SS1: H317;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT-SE3: H335;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AA1: H400;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CA1: H410</td>
</tr>
<tr>
<td>Methyl-chloro-isothiazolinone</td>
<td>26172-55-4</td>
<td>247-500-7</td>
<td>0.001725%</td>
<td>ATO4: H302;</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>SC1: H314;</td>
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<tr>
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<td></td>
<td></td>
<td>ED1: H318;</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>SS1: H317;</td>
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<td></td>
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<td></td>
<td></td>
<td>STOT-SE3: H335;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AA1: H400;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CA1: H410</td>
</tr>
</tbody>
</table>

Note
The ingredient(s) listed above are considered hazardous. The remaining components are non-hazardous and/or present at amounts below reportable limits. See Section 16 for full text of GHS classifications.
### SECTION 4 - FIRST AID MEASURES

#### Description of first aid measures

<table>
<thead>
<tr>
<th>Immediate Medical Attention Needed</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye Contact</strong></td>
<td>If easy to do, remove contact lenses, if worn. Immediately flush eyes with copious quantities of water for at least 15 minutes. If irritation occurs or persists, notify medical personnel and supervisor.</td>
</tr>
<tr>
<td><strong>Skin Contact</strong></td>
<td>Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>Immediately move exposed subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Immediately notify medical personnel and supervisor.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>If swallowed, call a physician immediately. Do not induce vomiting unless directed by medical personnel. Do not give anything to drink unless directed by medical personnel. Never give anything by mouth to an unconscious person. Notify medical personnel and supervisor.</td>
</tr>
</tbody>
</table>

#### Protection of first aid responders

See Section 8 for Exposure Controls/Personal Protection recommendations.

#### Most important symptoms and effects, both acute and delayed

See Sections 2 and 11

#### Indication of immediate medical attention and special treatment needed, if necessary

Medical conditions aggravated by exposure: None known or reported. Treat symptomatically and supportively.

### SECTION 5 - FIREFIGHTING MEASURES

#### Extinguishing media

Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for surrounding fire and materials.

#### Specific hazards arising from the substance or mixture

No information identified. May emit carbon monoxide, carbon dioxide, oxides of nitrogen, sulfur-containing compounds, and chlorine-containing compounds.

**Flammability/Explosivity**

No explosivity or flammability data identified. As product is an aqueous solution, it is not expected to be flammable or explosive.

#### Advice for firefighters

In case of fire in the surroundings: use the appropriate extinguishing agent. Wear full protective clothing and an approved, positive pressure, self-contained breathing apparatus. Decontaminate all equipment after use.
SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
If product is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment (see Section 8). Area should be adequately ventilated.

Environmental precautions
Do not empty into drains. Avoid release to the environment.

Methods and material for containment and cleaning up
DO NOT CAUSE MATERIAL TO BECOME AIRBORNE. For small spills, soak up material with absorbent, e.g., paper towels. For large spills, cordon off spill area and minimize the spreading of spilled material. Soak up material with absorbent. Collect spilled material, absorbent, and rinse water into suitable containers for proper disposal in accordance with applicable waste disposal regulations (see Section 13). Decontaminate the area twice with an appropriate solvent.

Reference to other sections
See Sections 8 and 13 for more information.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling
Follow recommendations for handling pharmaceutical agents (i.e., use of engineering controls and/or other personal protective equipment if needed). Avoid contact with eyes, skin and other mucous membranes. Wash thoroughly after handling. Avoid breathing mist/spray.

Conditions for safe storage including any incompatibilities
Store frozen at -20°C until ready for use.

Specific end use(s)
No information identified.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters/Occupational Exposure Limit Values

<table>
<thead>
<tr>
<th>Compound</th>
<th>Issuer</th>
<th>Type</th>
<th>OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2-Methyl-2H-isothiazol-3-one</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Methyl-chloro-isothiazolinone</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION …continued

Exposure/Engineering controls

Selection and use of containment devices and personal protective equipment should be based on a risk assessment of exposure potential. Use local exhaust and/or enclosure at aerosol/mist-generating points. Laboratory operations should be conducted within a laboratory hood or biological safety cabinet if feasible. Emphasis is to be placed on closed material transfer systems and process containment, with limited open handling.

Respiratory protection

Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls. If handling outside of containment device, an approved and properly fitted air-purifying respirator with HEPA filters should be considered to provide ancillary protection based on the known or foreseeable limitations of existing engineering controls. Use a powered air-purifying respirator equipped with HEPA filters or combination filters or a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, when exposure levels are not known, or in any other circumstances where a lower level of respiratory protection may not provide adequate protection.

Hand protection

Wear nitrile or other impervious gloves if skin contact is possible. Double gloves should be considered.

Skin protection

Wear appropriate gloves, lab coat, or other protective overgarment if skin contact is likely. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use.

Eye/face protection

Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

Environmental Exposure Controls

Avoid release to the environment and operate within closed systems wherever practicable. Air and liquid emissions should be directed to appropriate pollution control devices. In case of spill, do not release to drains. Implement appropriate and effective emergency response procedures to prevent release or spread of contamination and to prevent inadvertent contact by personnel.

Other protective measures

Wash hands in the event of contact with this product/mixture, especially before eating, drinking or smoking. Protective equipment is not to be worn outside the work area (e.g., in common areas or out-of-doors). Decontaminate all protective equipment following use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>No information identified.</td>
</tr>
</tbody>
</table>

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES …continued

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor threshold</td>
<td>No information identified.</td>
</tr>
<tr>
<td>pH</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Relative density</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Miscible in water</td>
</tr>
<tr>
<td>Solvent solubility</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information identified.</td>
</tr>
</tbody>
</table>

**Other information**

- Molecular formula: Not applicable (Mixture)
- Molecular weight: Not applicable (Mixture)

### SECTION 10 - STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No information identified.</td>
</tr>
</tbody>
</table>


SECTION 10 - STABILITY AND REACTIVITY  …continued

Chemical stability  Stable when stored as recommended.

Possibility of hazardous reactions  Not expected to occur.

Conditions to avoid  No information identified.

Incompatible materials  No information identified.

Hazardous decomposition products  No information identified.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects

Route of entry  May be absorbed by inhalation, skin contact and ingestion.

Acute toxicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Route</th>
<th>Species</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>LD₅₀</td>
<td>Oral</td>
<td>Rat</td>
<td>1800 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD₅₀</td>
<td>Intravenous (IV)</td>
<td>Mouse</td>
<td>1200 mg/kg</td>
</tr>
<tr>
<td>2-Methyl-2H-isothiazol-3-one</td>
<td>LD₅₀</td>
<td>Oral</td>
<td>Rat</td>
<td>1091 mg/kg</td>
</tr>
<tr>
<td>Methyl-chloro-isothiazolinone</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Irritation/Corrosion  Methyl-chloro-isothiazolinone, 2-Methyl-2H-isothiazol-3-one are corrosive to rabbit skin at concentrations ≥0.75%.

Sensitization  Methyl-chloro-isothiazolinone, 2-Methyl-2H-isothiazol-3-one are positive for skin sensitization at concentrations >0.0015%.

STOT-single exposure  No studies identified.

STOT-repeated exposure/Repeat-dose toxicity  No studies identified.

Reproductive toxicity  No studies identified.

Developmental toxicity  No studies identified.

Genotoxicity  No studies identified.

Carcinogenicity  No studies identified. None of the components of the mixture present at levels greater than or equal to 0.1% are listed by NTP, IARC, ACGIH or OSHA as a carcinogen.

Aspiration hazard  No studies identified

Human health data  See "Section 2 - Other Hazards"
SECTION 11 - TOXICOLOGICAL INFORMATION …continued

Additional information  The toxicological properties of this mixture have not been fully characterized.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Species</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>EC_{50} (96 h)</td>
<td>Green Algae</td>
<td>0.21 mg/L</td>
</tr>
<tr>
<td></td>
<td>LC_{50} (96 h)</td>
<td>Fathead minnow</td>
<td>4.5 mg/L</td>
</tr>
<tr>
<td>2-Methyl-2H-isothiazol-3-one</td>
<td>LC_{50}/96h</td>
<td>Oncorhynchus mykiss (rainbow trout)</td>
<td>0.07 mg/L</td>
</tr>
<tr>
<td></td>
<td>EC_{50}/48h</td>
<td>Daphnia Magna (Water Flea)</td>
<td>0.18 mg/L</td>
</tr>
<tr>
<td>Methyl-chloro-isothiazolinone</td>
<td>LC_{50}/96h</td>
<td>Oncorhynchus mykiss (rainbow trout)</td>
<td>0.25 mg/L</td>
</tr>
<tr>
<td></td>
<td>EC_{50}/48h</td>
<td>Daphnia Magna (Water Flea)</td>
<td>0.18 mg/L</td>
</tr>
</tbody>
</table>

Additional toxicity information  No data available.

Persistence and Degradability  No data available.

Bioaccumulative potential  No data available.

Mobility in soil  No data available.

Results of PBT and vPvB assessment  No data available.

Other adverse effects  No data available.

Note  The environmental characteristics of this product/mixture have not been fully investigated. Releases to the environment should be avoided.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods  Used product should be disposed of according to local, state, and federal regulations. Do not send down the drain or flush down the toilet. All wastes containing the material should be properly labeled. Dispose of wastes in accordance to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or on-site wastewater treatment facility.
SECTION 14 - TRANSPORT INFORMATION

Transport Based on the available data, this product/mixture is not regulated as a hazardous material/dangerous good under EU ADR/RID, US DOT, Canada TDG, IATA, or IMDG.

UN number None assigned.

UN proper shipping name None assigned.

Transport hazard classes and packing group None assigned.

Environmental hazards Based on the available data, this product/mixture is not regulated as an environmental hazard or a marine pollutant.

Special precautions for users Due to lack of data, avoid release to the environment.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture This SDS generally complies with the requirements listed under current guidelines in the US, EU and Canada. Consult your local or regional authorities for more information.

Chemical safety assessment Not conducted.

TSCA status Triton X-100 is listed. Methyl-chloro-isothiazolinone, 2-Methyl-2H-isothiazol-3-one are listed.

SARA section 313 Not listed.

California proposition 65 Not listed.

Additional information No other information identified.
SECTION 16 - OTHER INFORMATION

Full text of H phrases and GHS classifications


Sources of data

Information from published literature and internal company data.

Abbreviations

ACGIH - American Conference of Governmental Industrial Hygienists; ADR/RID - European Agreement Concerning the International Carriage of Dangerous Goods by Road/Rail; AIHA - American Industrial Hygiene Association; CAS# - Chemical Abstract Services Number; CLP - Classification, Labelling, and Packaging of Substances and Mixtures; DNEL - Derived No Effect Level; DOT - Department of Transportation; EINECS - European Inventory of New and Existing Chemical Substances; ELINCS - European List of Notified Chemical Substances; EU - European Union; GHS - Globally Harmonized System of Classification and Labeling of Chemicals; IARC - International Agency for Research on Cancer; IDLH - Immediately Dangerous to Life or Health; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; LOEL - Lowest Observed Effect Level; LOAEL - Lowest Observed Adverse Effect Level; NIOSH - The National Institute for Occupational Safety and Health; NOEL - No Observed Effect Level; NOAEL - No Observed Adverse Effect Level; NTP - National Toxicology Program; OEL - Occupational Exposure Limit; OSHA - Occupational Safety and Health Administration; PBT - Persistent, Bioaccumulative, and Toxic; PNEC - Predicted No Effect Concentration; SARA - Superfund Amendments and Reauthorization Act; STOT - Specific Target Organ Toxicity; STEL - Short Term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Issue Date

11 June 2020

Revisions

This is the first version of this SDS.

Disclaimer

The above information is based on data available to us and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it must make their own determination of the effects, properties and protections which pertain to their particular conditions. No representation, warranty, or guarantee, express or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the materials, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material because it is a
SECTION 16 - OTHER INFORMATION …continued

Disclaimer …continued pharmaceutical/diagnostic product. The above information is offered in good faith and with the belief that it is accurate. As of the date of issuance, we are providing all information relevant to the foreseeable handling of the material. However, in the event of an adverse incident associated with this product, this Safety Data Sheet is not, and is not intended to be, a substitute for consultation with appropriately trained personnel.
SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Contact information

General

Genapsys, Inc.
200 Cardinal Way, 3rd Floor
Redwood City, CA 94063
Phone: +1 (650) 330-1096
E-mail: support@genapsys.com

Emergency telephone number

Chemtrec (24-hour availability):
+1 (800) 424-9300 (USA and Canada)
+1 (703) 527-3887 (International; collect calls accepted)

Product identifier
G3 Sequencing Kit V3 (Box 3) - PN 1001874; 1001647

Synonyms
Sequencing Kit - Box 3 -
Incorporation buffer v3.0; Meltoff Solution

Trade names
G3 Sequencing Kit V3 (Box 3)

Chemical family
Mixture

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

For research use only (RUO).

Note
The physical, chemical, toxicological and ecological properties of this product/mixture have not been fully characterized. This SDS will be revisited as more data become available.

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System [GHS]
Aquatic toxicity (acute) - Category 3.

Other/Supplemental
Mixture not yet fully tested

Label elements
SECTION 2 - HAZARDS IDENTIFICATION

GHS hazard pictogram: None required
GHS signal word: None required
GHS hazard statements: H402 - Harmful to aquatic life.
GHS precautionary statements: P273 - Avoid release to the environment. P501 - Dispose of contents/container to location in accordance with local/regional/national/international regulations.

Other hazards: The potential health hazards associated with exposure/handling of this mixture are unknown; no data specific for the mixture were identified. The following data describe the hazards of individual ingredients, where applicable.

Note: This mixture does not meet criteria for classification under GHS as implemented by Regulation EC No 1272/2008 (EU CLP), WHMIS 2015 (Health Canada), and Hazard Communication Standard No. 1910.1200 (US OSHA). Nevertheless, it should be handled with caution as it has not yet been fully tested.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>EINECS/ELIN CS#</th>
<th>Amount</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl sulfoxide</td>
<td>67-68-5</td>
<td>200-664-3</td>
<td>~5%</td>
<td>SI2: H315</td>
</tr>
<tr>
<td>Triton X-100</td>
<td>9002-93-1</td>
<td>618-344-0</td>
<td>≤1%</td>
<td>ATO4:H302; SI2:H315; EI2:H319; AA1:H400</td>
</tr>
</tbody>
</table>

Note: The ingredient(s) listed above are considered hazardous. The remaining components are non-hazardous and/or present at amounts below reportable limits. See Section 16 for full text of GHS classifications.

SECTION 4 - FIRST AID MEASURES

Description of first aid measures

Immediate Medical Attention Needed: No. If exposed or concerned: Get medical advice/attention.

Eye Contact: If easy to do, remove contact lenses, if worn. Immediately flush eyes with copious quantities of water for at least 15 minutes. If irritation occurs or persists, notify medical personnel and supervisor.

Skin Contact: Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.

Inhalation: Immediately move exposed subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Immediately notify medical personnel and supervisor.
### SECTION 4 - FIRST AID MEASURES  …continued

**Ingestion**  
Do not induce vomiting unless directed by medical personnel. Do not give anything to drink unless directed by medical personnel. Never give anything by mouth to an unconscious person. Notify medical personnel and supervisor.

**Protection of first aid responders**  
See Section 8 for Exposure Controls/Personal Protection recommendations.

**Most important symptoms and effects, both acute and delayed**  
See Sections 2 and 11

**Indication of immediate medical attention and special treatment needed, if necessary**  
Medical conditions aggravated by exposure: None known or reported. Treat symptomatically and supportively.

### SECTION 5 - FIREFIGHTING MEASURES

**Extinguishing media**  
Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for surrounding fire and materials.

**Specific hazards arising from the substance or mixture**  
May emit carbon monoxide, carbon dioxide, oxides of nitrogen, and sulfur-containing compounds.

**Flammability/Explosivity**  
No explosivity or flammability data identified. As product is an aqueous solution, it is not expected to be flammable or explosive.

**Advice for firefighters**  
In case of fire in the surroundings: use the appropriate extinguishing agent. Wear full protective clothing and an approved, positive pressure, self-contained breathing apparatus. Decontaminate all equipment after use.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**  
If product is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment (see Section 8). Area should be adequately ventilated. Do not breathe mist/vapors/spray.

**Environmental precautions**  
Avoid release to the environment.

**Methods and material for containment and cleaning up**  
For small spills, soak up material with absorbent, e.g., paper towels. For large spills, cordon off spill area and minimize the spreading of spilled material. Soak up material with absorbent. Wash spill area thoroughly with water. Collect spilled material, absorbent, and rinse water into suitable containers for proper disposal in accordance with applicable waste disposal regulations (see Section 13).
### SECTION 6 - ACCIDENTAL RELEASE MEASURES …continued

**Reference to other sections**  
See Sections 8 and 13 for more information.

### SECTION 7 - HANDLING AND STORAGE

#### Precautions for safe handling

Follow recommendations for handling pharmaceutical agents (i.e., use of engineering controls and/or other personal protective equipment if needed). Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapor/mist/spray.

#### Conditions for safe storage including any incompatibilities

Store frozen at -20°C until ready for use.

#### Specific end use(s)

No information identified.

### SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

**Note**  
Dispose of broken vials/syringes in a sharps container.

#### Control Parameters/Occupational Exposure Limit Values

<table>
<thead>
<tr>
<th>Compound</th>
<th>Issuer</th>
<th>Type</th>
<th>OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl sulfoxide</td>
<td>AIHA</td>
<td>WEEL-TWA</td>
<td>250 ppm</td>
</tr>
<tr>
<td></td>
<td>Germany,</td>
<td></td>
<td>50 ppm, 160 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Switzerland</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Estonia,</td>
<td>STEL</td>
<td>150 ppm, 500 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Lithuania,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>TWA</td>
<td>50 ppm, 150 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Estonia,</td>
<td>TLV</td>
<td>50 ppm, 150 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Lithuania</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>Finland</td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>Switzerland</td>
<td>STEL</td>
<td>100 ppm, 320 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>Ceiling</td>
<td>100 ppm, 320 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>TWA</td>
<td>50 ppm, 160 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Slovenia</td>
<td>TWA</td>
<td>160 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>TWA</td>
<td>50 ppm, 160 mg/m³</td>
</tr>
<tr>
<td>Triton X-100</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION …continued

**Exposure/Engineering controls**  
Selection and use of containment devices and personal protective equipment should be based on a risk assessment of exposure potential. Use local exhaust and/or enclosure at aerosol/mist-generating points. Emphasis is to be placed on closed material transfer systems and process containment, with limited open handling. High-energy operations should be done within an approved emission control or containment system.

**Respiratory protection**  
Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls. For routine handling tasks, an approved and properly fitted air-purifying respirator with appropriate HEPA filters should provide ancillary protection based on the known or foreseeable limitations of existing engineering controls.

**Hand protection**  
Wear nitrile or other impervious gloves if skin contact is possible.

**Skin protection**  
Wear appropriate gloves, lab coat, or other protective overgarment if skin contact is likely. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use.

**Eye/face protection**  
Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

**Environmental Exposure Controls**  
Avoid release to the environment and operate within closed systems wherever practicable. Air and liquid emissions should be directed to appropriate pollution control devices. In case of spill, do not release to drains. Implement appropriate and effective emergency response procedures to prevent release or spread of contamination and to prevent inadvertent contact by personnel.

**Other protective measures**  
Wash hands in the event of contact with this product/mixture, especially before eating, drinking or smoking. Protective equipment is not to be worn outside the work area (e.g., in common areas or out-of-doors).

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Clear, colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information identified.</td>
</tr>
<tr>
<td>pH</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information identified.</td>
</tr>
</tbody>
</table>
### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES …continued

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Relative density</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Miscible in water.</td>
</tr>
<tr>
<td>Solvent solubility</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Partition coefficient (n\text{-}octanol/water)</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Other information</td>
<td></td>
</tr>
<tr>
<td>Molecular formula</td>
<td>Not applicable (Mixture)</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>Not applicable (Mixture)</td>
</tr>
</tbody>
</table>

### SECTION 10 - STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Stable under recommended handling and storage conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Not expected to occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No information identified.</td>
</tr>
</tbody>
</table>
SECTION 10 - STABILITY AND REACTIVITY …continued

Incompatible materials  
No information identified.

Hazardous decomposition products  
No information identified.

SECTION 11 - TOXICOLOGICAL INFORMATION

Note  
No data for this product/mixture were identified. The following data describe the individual ingredients where applicable.

Information on toxicological effects

Route of entry  
May be absorbed by inhalation, skin contact and ingestion.

Acute toxicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Route</th>
<th>Species</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl sulfoxide</td>
<td>LD₅₀</td>
<td>Oral</td>
<td>Rat</td>
<td>14.5 g/kg</td>
</tr>
<tr>
<td></td>
<td>LD₅₀</td>
<td>Oral</td>
<td>Rat</td>
<td>28.3 g/kg</td>
</tr>
<tr>
<td></td>
<td>LD₅₀</td>
<td>Oral</td>
<td>Mouse</td>
<td>7.9 g/kg</td>
</tr>
<tr>
<td></td>
<td>LD₅₀</td>
<td>Oral</td>
<td>Mouse</td>
<td>21.4 g/kg</td>
</tr>
<tr>
<td></td>
<td>LC₅₀ (4 hour)</td>
<td>Inhalation</td>
<td>Rat</td>
<td>≥1600 mg/m³</td>
</tr>
<tr>
<td>Triton X-100</td>
<td>LD₅₀</td>
<td>Dermal</td>
<td>Rat</td>
<td>≥40,000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD₅₀</td>
<td>Oral</td>
<td>Rat</td>
<td>1800 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD₅₀</td>
<td>Intravenous (IV)</td>
<td>Mouse</td>
<td>1200 mg/kg</td>
</tr>
</tbody>
</table>

Irritation/Corrosion  
Dimethyl sulfoxide is a skin irritant in humans and animals. Triton X-100 is considered irritating to eyes and skin.

Sensitization  
No data on product formulation.

STOT-single exposure  
No data on product formulation. No toxicity was reported in male rats exposed to an aerosol of 1600 mg/m³ DMSO over four hours.

STOT-repeated exposure/Repeat-dose toxicity  
No data on product formulation. No toxicity was reported in male rats exposed to an aerosol of 200 mg/m³ DMSO for seven hours/day, five days per week, over six weeks for 30 exposures.

DMSO was administered dermally to rabbits for 30 days at a dose of 1 or 5 g/kg/day. Rabbits received dermal applications of DMSO to normal and abraded skin for a period of 23 weeks, when ocular changes were observed. Treatment was withheld from animals showing ocular changes; the remaining animals continued to receive DMSO applications for the scheduled 26 weeks (6 months). Mortality was high in all groups, however there were no significant differences in mortality between groups. There were no clinical signs to suggest systemic toxicity.

DMSO was administered as a 90% solution to rhesus monkeys by gastric intubation, seven days per week for up to 87 weeks. Doses administered were equivalent to 990, 2970, and 8910 mg/kg/day. The principal physical signs seen in
SECTION 11 - TOXICOLOGICAL INFORMATION

STOT-repeated exposure/Repeat-dose toxicity ...continued

Included excess salivation and emesis, which occurred sporadically and did not appear to be related to the dose except in the group receiving higher volume of compound. Anorexia occurred at high oral doses. No DMSO-related changes were found in the treated monkeys during physical examinations.

Reproductive toxicity

No data on product formulation.

Developmental toxicity

No data on product formulation. DMSO has been associated with teratogenic and/or embryotoxic effects in the hamster, rat, mouse, and chick at high doses. In the hamster, the injection of 500-800 mg/kg on the eighth day of gestation was associated with a wide variety of congenital defects, including exencephaly, microphthalmia, bone and limb abnormalities, and cleft lip.

Increased frequencies of fetal death were observed when pregnant rats and rabbits were treated with doses of 5-10 and 1-3 g/kg/day, respectively. However, fetal death was not increased in another study after intraperitoneal treatment of pregnant rats with 6.9 g/kg/day of dimethyl sulfoxide. No malformations were observed in the offspring of rats treated with dimethyl sulfoxide at doses of 0.2-5 g/kg/day during pregnancy.

DMSO has been extensively used as a cryoprotectant in the freezing of early experimental animal and human embryos. The viability and apparent normalcy of frozen embryos after thawing suggests that DMSO exposure is not toxic to the early embryo.

Genotoxicity

No data on product formulation. Dimethyl sulfoxide was negative for genotoxicity in an Ames bacterial cell mutagenicity assay and a sister chromatid exchange assay in Chinese hamster ovary cells.

Carcinogenicity

No data on product formulation. None of the components of the product/mixture present at levels greater than or equal to 0.1% are listed by NTP, IARC, ACGIH or OSHA as a carcinogen.

Aspiration hazard

No data on product formulation.

Human health data

See "Section 2 - Other Hazards"

Additional information

The toxicological properties of this mixture have not been fully characterized.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Species</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl sulfoxide</td>
<td>EC50/96h</td>
<td>Skeletonema costatum (Diatom)</td>
<td>12.35 - 25.5 g/L</td>
</tr>
<tr>
<td></td>
<td>LC50/96h</td>
<td>Pimephales promelas</td>
<td>34 g/L</td>
</tr>
<tr>
<td></td>
<td>LC50/96h</td>
<td>Oncorhynchus mykiss</td>
<td>33-37 g/L (static)</td>
</tr>
<tr>
<td></td>
<td>LC50/96h</td>
<td>Lepomis macrochirus</td>
<td>&gt;40 g/L (static)</td>
</tr>
<tr>
<td></td>
<td>LC50/96h</td>
<td>Cyprinus carpio</td>
<td>41.7 g/L</td>
</tr>
<tr>
<td></td>
<td>EC50/24h</td>
<td>Daphnia magna</td>
<td>7 g/L</td>
</tr>
</tbody>
</table>
SECTION 12 - ECOLOGICAL INFORMATION …continued

Toxicity …continued

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Species</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>EC₅₀ (96 h)</td>
<td>Green Algae</td>
<td>0.21 mg/L</td>
</tr>
<tr>
<td></td>
<td>LC₅₀ (96 h)</td>
<td>Fathead minnow</td>
<td>4.5 mg/L</td>
</tr>
</tbody>
</table>

Persistence and Degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
Not performed.

Other adverse effects
No data available.

Note
The environmental characteristics of this product/mixture have not been fully investigated. Releases to the environment should be avoided.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods
Used product should be disposed of according to local, state, and federal regulations. Dispose of wastes in accordance to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator. Do not send down the drain or flush down the toilet. All wastes containing the material should be properly labeled. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or on-site wastewater treatment facility.

SECTION 14 - TRANSPORT INFORMATION

Transport
Based on the available data, this product/mixture is not regulated as a hazardous material/dangerous good under EU ADR/RID, US DOT, Canada TDG, IATA, or IMDG.

UN number
None assigned.

UN proper shipping name
None assigned.

Transport hazard classes and packing group
None assigned.

Environmental hazards
Based on the available data, this product/mixture should be regarded as hazardous to the environment, but it is not listed as a marine pollutant [in accordance with IMDG].
SECTION 14 - TRANSPORT INFORMATION …continued

Special precautions for users Due to lack of data, avoid release to the environment.

Transport in bulk according Not applicable.
to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15 - REGULATORY INFORMATION

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

This SDS generally complies with the requirements listed under current guidelines in the US, EU and Canada. Consult your local or regional authorities for more information.

Chemical safety assessment Not conducted.

TSCA status DMSO is listed. Triton X-100 is listed.

SARA section 313 Not listed.

California proposition 65 Not listed.

Additional information No other information identified.

SECTION 16 - OTHER INFORMATION

Full text of H phrases and GHS classifications


Sources of data Information from published literature and internal company data.

Abbreviations

ACGIH - American Conference of Governmental Industrial Hygienists; ADR/RID - European Agreement Concerning the International Carriage of Dangerous Goods by Road/Rail; AIHA - American Industrial Hygiene Association; CAS# - Chemical Abstract Services Number; CLP - Classification, Labelling, and Packaging of Substances and Mixtures; DNEL - Derived No Effect Level; DOT - Department of Transportation; EINECS - European Inventory of New and Existing Chemical Substances; ELINCS - European List of Notified Chemical Substances; EU - European Union; GHS - Globally Harmonized System of Classification and Labeling of Chemicals; IARC - International Agency for Research on Cancer; IDLH - Immediately Dangerous to Life or Health; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; LOEL - Lowest Observed Effect Level; LOAEL - Lowest Observed Adverse Effect Level; NIOSH - The National Institute for Occupational Safety and Health; NOEL - No Observed Effect Level; NOAEL - No Observed Adverse Effect Level; NTP - National Toxicology Program; OEL - Occupational Exposure Limit; OSHA - Occupational Safety and Health Administration;
SECTION 16 - OTHER INFORMATION …continued

Abbreviations …continued

PBT - Persistent, Bioaccumulative, and Toxic; PNEC - Predicted No Effect Concentration; SARA - Superfund Amendments and Reauthorization Act; STOT - Specific Target Organ Toxicity; STEL - Short Term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Issue Date

11 June 2020

Revisions

This is the first version of this SDS.

Disclaimer

The above information is based on data available to us and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it must make their own determination of the effects, properties and protections which pertain to their particular conditions. No representation, warranty, or guarantee, express or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the materials, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material because it is a pharmaceutical/diagnostic product. The above information is offered in good faith and with the belief that it is accurate. As of the date of issuance, we are providing all information relevant to the foreseeable handling of the material. However, in the event of an adverse incident associated with this product, this Safety Data Sheet is not, and is not intended to be, a substitute for consultation with appropriately trained personnel.
SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Contact information

General

Genapsys, Inc.
200 Cardinal Way, 3rd Floor
Redwood City, CA 94063
Phone: +1 (650) 330-1096
E-mail: support@genapsys.com

Emergency telephone number

Chemtrec (24-hour availability):
+1 (800) 424-9300 (USA and Canada)
+1 (703) 527-3887 (International; collect calls accepted)

Product identifier

G3 Sequencing Kit V3 (Box 3) - PN 1001474; PN 1001696

Synonyms

Sequencing Kit - Box 3 - Calibration buffer; Sequencing Buffer

Trade names

G3 Sequencing Kit V3 (Box 3)

Chemical family

Mixture

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

For research use only (RUO).

Note

The physical, chemical, toxicological and ecological properties of this product/mixture have not been fully characterized. This SDS will be revisited as more data become available.

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System [GHS]

Not classified

Other/Supplemental

Mixture not yet fully tested
SECTION 2 - HAZARDS IDENTIFICATION …continued

GHS hazard pictogram None required
GHS signal word None required
GHS hazard statements None required
GHS precautionary statements None required

Other hazards
The potential health hazards associated with exposure/handling of this mixture are unknown; no data specific for the mixture were identified. The following data describe the hazards of individual ingredients, where applicable.

Note
This mixture does not meet criteria for classification under GHS as implemented by Regulation EC No 1272/2008 (EU CLP), WHMIS 2015 (Health Canada), and Hazard Communication Standard No. 1910.1200 (US OSHA).

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>EINECS/ELIN CS#</th>
<th>Amount</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>9002-93-1</td>
<td>618-344-0</td>
<td>≤0.1%</td>
<td>ATO4:H302; SI2:H315; EI2:H319; AA1:H400</td>
</tr>
</tbody>
</table>

Note
The ingredient(s) listed above are considered hazardous. The remaining components are non-hazardous and/or present at amounts below reportable limits. See Section 16 for full text of GHS classifications.

SECTION 4 - FIRST AID MEASURES

Description of first aid measures

Immediate Medical Attention Needed
No. If exposed or concerned: Get medical advice/attention.

Eye Contact
If easy to do, remove contact lenses, if worn. Immediately flush eyes with copious quantities of water for at least 15 minutes. If irritation occurs or persists, notify medical personnel and supervisor.

Skin Contact
Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.

Inhalation
Immediately move exposed subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Immediately notify medical personnel and supervisor.
**SECTION 4 - FIRST AID MEASURES** …continued

<table>
<thead>
<tr>
<th>Ingestion</th>
<th>Do not induce vomiting unless directed by medical personnel. Do not give anything to drink unless directed by medical personnel. Never give anything by mouth to an unconscious person. Notify medical personnel and supervisor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection of first aid responders</td>
<td>See Section 8 for Exposure Controls/Personal Protection recommendations.</td>
</tr>
<tr>
<td>Most important symptoms and effects, both acute and delayed</td>
<td>See Sections 2 and 11.</td>
</tr>
<tr>
<td>Indication of immediate medical attention and special treatment needed, if necessary</td>
<td>Medical conditions aggravated by exposure: None known or reported. Treat symptomatically and supportively.</td>
</tr>
</tbody>
</table>

**SECTION 5 - FIREFIGHTING MEASURES**

<table>
<thead>
<tr>
<th>Extinguishing media</th>
<th>Use water spray (fog), foam, dry powder, or carbon dioxide, as appropriate for surrounding fire and materials.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific hazards arising from the substance or mixture</td>
<td>No information identified. May emit carbon monoxide, carbon dioxide, oxides of nitrogen, magnesium-, and chlorine-containing compounds.</td>
</tr>
<tr>
<td>Flammability/Explosivity</td>
<td>No explosivity or flammability data identified. As product is an aqueous solution, it is not expected to be flammable or explosive.</td>
</tr>
<tr>
<td>Advice for firefighters</td>
<td>Wear full protective clothing and a self-contained breathing apparatus with a full facepiece operated in the pressure demand or other positive pressure mode. Decontaminate all equipment after use.</td>
</tr>
</tbody>
</table>

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

| Personal precautions, protective equipment and emergency procedures | If product is released or spilled, take proper precautions to minimize exposure by using appropriate personal protective equipment (see Section 8). Area should be adequately ventilated. Do not breathe dust. |
| Environmental precautions | Do not empty into drains. Avoid release to the environment. |
| Methods and material for containment and cleaning up | For small spills, soak up material with absorbent, e.g., paper towels. For large spills, cordon off spill area and minimize the spreading of spilled material. Soak up material with absorbent. Wash spill area thoroughly with water. Collect spilled material, absorbent, and rinse water into suitable containers for proper disposal in accordance with applicable waste disposal regulations (see Section 13). |
SECTION 6 - ACCIDENTAL RELEASE MEASURES …continued

Reference to other sections See Sections 8 and 13 for more information.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling Follow recommendations for handling pharmaceutical agents (i.e., use of engineering controls and/or other personal protective equipment if needed). Avoid contact with eyes, skin and other mucous membranes. Wash thoroughly after handling. Avoid breathing vapor/mist/spray.

Conditions for safe storage including any incompatibilities Store frozen at -20°C until ready for use.

Specific end use(s) No information identified.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Note Dispose of broken vials/syringes in a sharps container.

Control Parameters/Occupational Exposure Limit Values

<table>
<thead>
<tr>
<th>Compound</th>
<th>Issuer</th>
<th>Type</th>
<th>OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Exposure/Engineering controls Selection and use of containment devices and personal protective equipment should be based on a risk assessment of exposure potential. Use local exhaust and/or enclosure at aerosol/mist-generating points. Emphasis is to be placed on closed material transfer systems and process containment, with limited open handling. High-energy operations should be done within an approved emission control or containment system.

Respiratory protection Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls. For routine handling tasks, an approved and properly fitted air-purifying respirator with appropriate HEPA filters should provide ancillary protection based on the known or foreseeable limitations of existing engineering controls.

Hand protection Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent.

Skin protection Wear appropriate gloves, lab coat, or other protective overgarment if skin contact is likely. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use.
SECTION 8 - EXPOSURE CONTROLS/PERSOYNAL PROTECTION …continued

Eye/face protection
Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

Environmental Exposure Controls
Avoid release to the environment and operate within closed systems wherever practicable. Air and liquid emissions should be directed to appropriate pollution control devices. In case of spill, do not release to drains. Implement appropriate and effective emergency response procedures to prevent release or spread of contamination and to prevent inadvertent contact by personnel.

Other protective measures
Wash hands in the event of contact with this product/mixture, especially before eating, drinking or smoking. Protective equipment is not to be worn outside the work area (e.g., in common areas or out-of-doors). Decontaminate all protective equipment following use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Clear, colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information identified.</td>
</tr>
<tr>
<td>pH</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information identified</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information identified</td>
</tr>
<tr>
<td>Relative density</td>
<td>No information identified</td>
</tr>
</tbody>
</table>
SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES …continued

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water solubility</td>
<td>Miscible in water</td>
</tr>
<tr>
<td>Solvent solubility</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information identified.</td>
</tr>
<tr>
<td>(n-octanol/water)</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information identified.</td>
</tr>
</tbody>
</table>

Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular formula</td>
<td>Not applicable (Mixture)</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>Not applicable (Mixture)</td>
</tr>
</tbody>
</table>

SECTION 10 - STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Stable when stored and handled as recommended.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Not expected to occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>No information identified.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>No information identified.</td>
</tr>
</tbody>
</table>

SECTION 11 - TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note</td>
<td>No data for this product/mixture were identified. The following data describe the individual ingredients where applicable.</td>
</tr>
<tr>
<td>Information on toxicological effects</td>
<td>Route of entry May be absorbed by inhalation, skin contact and ingestion.</td>
</tr>
</tbody>
</table>
SECTION 11 - TOXICOLOGICAL INFORMATION …continued

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Route</th>
<th>Species</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>LD50</td>
<td>Oral</td>
<td>Rat</td>
<td>1800 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50</td>
<td>Intravenous (IV)</td>
<td>Mouse</td>
<td>1200 mg/kg</td>
</tr>
</tbody>
</table>

Irritation/Corrosion
Triton X-100 is considered irritating to eyes and skin.

Sensitization
No studies identified.

STOT-single exposure
No studies identified.

STOT-repeated exposure/Repeat-dose toxicity
No studies identified.

Reproductive toxicity
No studies identified.

Developmental toxicity
No studies identified.

Genotoxicity
No studies identified.

Carcinogenicity
No studies identified. None of the components of this mixture present at levels greater than or equal to 0.1% are listed by NTP, IARC, ACGIH or OSHA as a carcinogen.

Aspiration hazard
No studies identified

Human health data
See "Section 2 - Other Hazards"

SECTION 12 - ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Compound</th>
<th>Type</th>
<th>Species</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100</td>
<td>EC50 (96 h)</td>
<td>Green Algae</td>
<td>0.21 mg/L</td>
</tr>
<tr>
<td></td>
<td>LC50 (96 h)</td>
<td>Fathead minnow</td>
<td>4.5 mg/L</td>
</tr>
</tbody>
</table>

Persistence and Degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
Not performed.

Other adverse effects
No data available.
SECTION 12 - ECOLOGICAL INFORMATION …continued

Note
The environmental characteristics of the **this mixture have not been fully investigated.** The above data are for the active ingredient and/or any other ingredient(s) where applicable. Releases to the environment should be avoided.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods
Used product should be disposed of according to local, state, and federal regulations. Do not send down the drain or flush down the toilet. All wastes containing the material should be properly labeled. Dispose of wastes in accordance to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or on-site wastewater treatment facility.

SECTION 14 - TRANSPORT INFORMATION

Transport
Based on the available data, this product/mixture is not regulated as a hazardous material/dangerous good under EU ADR/RID, US DOT, Canada TDG, IATA, or IMDG.

UN number
None assigned.

UN proper shipping name
None assigned.

Transport hazard classes and packing group
None assigned.

Environmental hazards
Based on the available data, this product/mixture is not regulated as an environmental hazard or a marine pollutant.

Special precautions for users
Due to lack of data, avoid release to the environment.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
This SDS generally complies with the requirements listed under current guidelines in the US, EU and Canada. Consult your local or regional authorities for more information.
**SECTION 15 - REGULATORY INFORMATION** …continued

**Chemical safety assessment**  
Not conducted.

**TSCA status**  
Triton X-100 is listed.

**SARA section 313**  
Not listed.

**California proposition 65**  
Not listed.

**Additional information**  
No other information identified.

**SECTION 16 - OTHER INFORMATION**

|---|---|

**Sources of data**  
Information from published literature and internal company data.

**Abbreviations**  
ACGIH - American Conference of Governmental Industrial Hygienists; ADR/RID - European Agreement Concerning the International Carriage of Dangerous Goods by Road/Rail; AIHA - American Industrial Hygiene Association; CAS# - Chemical Abstract Services Number; CLP - Classification, Labelling, and Packaging of Substances and Mixtures; DNEL - Derived No Effect Level; DOT - Department of Transportation; EINECS - European Inventory of New and Existing Chemical Substances; ELINCS - European List of Notified Chemical Substances; EU - European Union; GHS - Globally Harmonized System of Classification and Labeling of Chemicals; IARC - International Agency for Research on Cancer; IDLH - Immediately Dangerous to Life or Health; IATA - International Air Transport Association; IMDG - International Maritime Dangerous Goods; LOEL - Lowest Observed Effect Level; LOAEL - Lowest Observed Adverse Effect Level; NIOSH - The National Institute for Occupational Safety and Health; NOEL - No Observed Effect Level; NOAEL - No Observed Adverse Effect Level; NTP - National Toxicology Program; OEL - Occupational Exposure Limit; OSHA - Occupational Safety and Health Administration; PBT - Persistent, Bioaccumulative, and Toxic; PNEC - Predicted No Effect Concentration; SARA - Superfund Amendments and Reauthorization Act; STOT - Specific Target Organ Toxicity; STEL - Short Term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

**Issue Date**  
11 June 2020

**Revisions**  
This is the first version of this SDS.
SECTION 16 - OTHER INFORMATION …continued

Disclaimer

The above information is based on data available to us and is believed to be correct. Since the information may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use and all persons receiving it must make their own determination of the effects, properties and protections which pertain to their particular conditions. No representation, warranty, or guarantee, express or implied (including a warranty of fitness or merchantability for a particular purpose), is made with respect to the materials, the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of the material. Caution should be used in the handling and use of the material because it is a pharmaceutical/diagnostic product. The above information is offered in good faith and with the belief that it is accurate. As of the date of issuance, we are providing all information relevant to the foreseeable handling of the material. However, in the event of an adverse incident associated with this product, this Safety Data Sheet is not, and is not intended to be, a substitute for consultation with appropriately trained personnel.