



G-Biocide-II

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : G-Biocide-II
Product code : 382G-A

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Preservative

1.3. Supplier

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
Saint Louis, 63132-1429 - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4	H302 Harmful if swallowed
Acute toxicity (dermal) Category 1	H310 Fatal in contact with skin
Acute toxicity (inhalation:dust,mist) Category 2	H330 Fatal if inhaled
Specific target organ toxicity (repeated exposure) Category 2	H373 May cause damage to organs through prolonged or repeated exposure
Hazardous to the aquatic environment - Acute Hazard Category 1	H400 Very toxic to aquatic life
Hazardous to the aquatic environment - Chronic Hazard Category 2	H411 Toxic to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H302 - Harmful if swallowed
H310+H330 - Fatal in contact with skin or if inhaled
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS US) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P284 - [In case of inadequate ventilation] wear respiratory protection.
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
P302+P352 - If on skin: Wash with plenty of water.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P310 - Immediately call a poison center or doctor.
P314 - Get medical advice/attention if you feel unwell.
P320 - Specific treatment is urgent (see supplemental first aid instruction on this label).
P322 - Specific treatment (see supplemental first aid instruction on this label)
P330 - Rinse mouth.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.

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P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
THIMEROSAL (Note A)(Note 1)	mercurate(1-), ethyl[2-mercaptobenzoato(2-)-O,S]-, sodium / sodium 2-(ethylmercuriothio)benzoate / thiomersal	(CAS-No.) 54-64-8	10 – 50	Acute Tox. 3 (Oral), H301 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation), H330 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Note 1 : The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture.

Note A : Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4.

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
First-aid measures after skin contact : Wash immediately with lots of water. Soap may be used. Consult a doctor/medical service.
First-aid measures after eye contact : Rinse immediately with plenty of water.
First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : On burning: release of toxic and corrosive gases/vapours (sulphur oxides, carbon monoxide - carbon dioxide, mercury vapours).

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Use self-contained breathing apparatus and chemically protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Avoid contact with skin and eyes.

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6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection.
Emergency procedures : Evacuate area. Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Use self-contained breathing apparatus and chemically protective clothing.
Emergency procedures : Evacuate unnecessary personnel. Ventilate area.

6.2. Environmental precautions

Do not allow product to spread into the environment. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Absorb remaining liquid with sand or inert absorbent and remove to safe place.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust. Do not breathe vapors.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store in a well-ventilated place. Keep container tightly closed. Store in tightly closed, leak-proof containers.
Storage conditions : Protect from sunlight.
Storage temperature : 2 – 8 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

G-Biocide-II	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	0.1 mg/m ³
ACGIH STEL (ppm)	0.03 ppm
Remark (ACGIH)	Central Nervous System impairment; Kidney damage; Peripheral Nervous System impairment; Danger of cutaneous absorption varies
THIMEROSAL (54-64-8)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	0.1 mg/m ³

8.2. Appropriate engineering controls

8.3. Individual protection measures/Personal protective equipment

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : No data available
Odor : No data available
Odor threshold : No data available
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available

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Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Fatal in contact with skin.
Acute toxicity (inhalation)	: Fatal if inhaled.

ATE US (oral)	750 mg/kg body weight
ATE US (dermal)	50 mg/kg body weight
ATE US (dust, mist)	0.5 mg/l/4h

THIMEROSAL (54-64-8)	
LD50 oral rat	75 mg/kg (Rat, Oral)
ATE US (oral)	75 mg/kg body weight
ATE US (dermal)	5 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified

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Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.

THIMEROSAL (54-64-8)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available

SECTION 12: Ecological information

12.1. Toxicity

THIMEROSAL (54-64-8)

LC50 fish 1	0.033 ppm (96 h, Salmo gairdneri, Mercury ion)
EC50 Daphnia 1	0.0052 mg/l (48 h, Daphnia magna, Mercury ion)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

THIMEROSAL (54-64-8)

Partition coefficient n-octanol/water (Log Pow)	-1.88
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12.4. Mobility in soil

THIMEROSAL (54-64-8)

Ecology - soil	Adsorbs into the soil.
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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description	: UN2024 Mercury compounds, liquid, n.o.s., 6.1, III
UN-No.(DOT)	: UN2024
Proper Shipping Name (DOT)	: Mercury compounds, liquid, n.o.s.
Class (DOT)	: 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132
Packing group (DOT)	: III - Minor Danger
Hazard labels (DOT)	: 6.1 - Poison



Dangerous for the environment : Yes

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Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

DOT Packaging Exceptions (49 CFR 173.xxx) : 153

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Emergency Response Guide (ERG) Number : 151

Other information : No supplementary information available.

Transportation of Dangerous Goods

Not applicable

Transport by sea

Transport document description (IMDG) : UN 2024 MERCURY COMPOUND, LIQUID, N.O.S., 6.1, III, MARINE POLLUTANT

UN-No. (IMDG) : 2024

Proper Shipping Name (IMDG) : MERCURY COMPOUND, LIQUID, N.O.S.

Class (IMDG) : 6.1 - Toxic substances

Packing group (IMDG) : III - substances presenting low danger

Marine pollutant : Yes



Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

THIMEROSAL (54-64-8)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

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15.3. US State regulations

No additional information available

SECTION 16: Other information

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Full text of H-phrases:

H301	Toxic if swallowed
H302	Harmful if swallowed
H310	Fatal in contact with skin
H330	Fatal if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.