

Amplification Master Mix

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)
Issue date: 09Jul2025 Revision date: 07Jul2025

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Trade name : Amplification Master Mix
Product code : 190915

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : DNA library preparation,Scientific research and development
Restrictions on use : None known

1.4. Supplier's details

Covaris, LLC.
14 Gill St., Unit H
Woburn, MA 01801
USA
T +1 (781) 932-3959

1.5. Emergency phone number

Emergency number : Chemtrec (800) 424-9300

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Specific target organ toxicity — Repeated exposure, Category 1	H372	Causes damage to organs (central nervous system) through prolonged or repeated exposure (if swallowed).
Hazardous to the aquatic environment — Chronic Hazard, Category 3	H412	Harmful to aquatic life with long lasting effects.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H302 - Harmful if swallowed
H372 - Causes damage to organs (central nervous system) through prolonged or repeated exposure (if swallowed)
H412 - Harmful to aquatic life with long lasting effects
P260 - Do not breathe mist, vapors, spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.

Precautionary statements (GHS US)

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P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
P314 - Get medical advice or attention if you feel unwell.
P330 - Rinse mouth.
P501 - Dispose of container to in accordance with local and national regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Glycerin	CAS-No.: 56-81-5	15 – 20
Tetramethylammonium chloride	CAS-No.: 75-57-0	1 – 3

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

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation : Move the affected person to fresh air. Get medical attention if symptoms occur.
First-aid measures after skin contact : Gently wash with plenty of soap and water. Get medical advice if skin irritation persists.
First-aid measures after eye contact : Rinse eyes with water as a precaution. Get medical attention if irritation develops and persists.
First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects : Causes eye irritation.
Skin : May cause slight irritation to the skin.
Eyes : May cause minor eye irritation.
Ingestion : Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Other medical advice or treatment : Not required.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None.

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5.2. Specific hazards arising from the chemical

Fire hazard : This product is not classified as flammable or combustible.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear suitable protective clothing. Avoid contact with eyes, skin and clothing.

For non-emergency personnel

Emergency procedures : Do not breathe mist, vapors, spray.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions : Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe mist, vapors. Avoid contact with eyes, skin and clothing. Wash hands with water and soap. Ensure adequate ventilation.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : No special storage required.
Incompatible materials : None known.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Glycerin (56-81-5)

USA - OSHA - Occupational Exposure Limits

Local name	Glycerin (mist)
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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

Glycerin (56-81-5)	
OSHA PEL (TWA)	15 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - Cal/OSHA - Occupational Exposure Limits	
Local name	Glycerin mist
Cal/OSHA PEL (OEL TWA)	10 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)

8.2. Appropriate engineering controls

Appropriate engineering controls : No particular/specific measures required.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Hand protection:
Wear suitable gloves
Eye protection:
Use suitable eye protection
Skin and body protection:
None under normal conditions
Respiratory protection:
In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear, colorless liquid.
Color	: Colorless
Odor	: None
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: No data available
Flammability (solid, gas)	: Not applicable.
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

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According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Amplification Master Mix	
ATE US (oral)	1200 mg/kg body weight
Tetramethylammonium chloride (75-57-0)	
LD50 oral rat	25 – 47 mg/kg Source: ECHA
LD50 oral	55 mg/kg
LD50 dermal rabbit	> 200 – 500 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
Glycerin (56-81-5)	
LD50 oral rat	27200 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Female, Experimental value, Oral)
LD50 oral	25000 mg/kg body weight
LD50 dermal	56750 mg/kg (4 day(s), Guinea pig, Male / female, Experimental value, Dermal, 14 day(s))

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Glycerin (56-81-5)	
LC50 Inhalation - Rat (Dust/Mist)	> 5.85 mg/l

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Tetramethylammonium chloride (75-57-0)	
NOAEL (animal/female, F0/P)	5 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs (central nervous system) through prolonged or repeated exposure (if swallowed).

Tetramethylammonium chloride (75-57-0)	
NOAEL (oral,rat,90 days)	10 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Symptoms/effects : Causes eye irritation.

Skin : May cause slight irritation to the skin.

Eyes : May cause minor eye irritation.

Ingestion : Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

Tetramethylammonium chloride (75-57-0)	
LC50 - Fish [1]	462 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	3 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	96.3 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
ErC50 algae	96 mg/l
NOEC chronic crustacea	0.03 mg/l

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Glycerin (56-81-5)	
LC50 - Fish [1]	54000 mg/l (96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 10000 mg/l (24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Other aquatic organisms [1]	> 10000 mg/l waterflea
EC50 - Other aquatic organisms [2]	> 10000 mg/l

12.2. Persistence and degradability

Amplification Master Mix	
Persistence and degradability	Rapidly degradable
Tetramethylammonium chloride (75-57-0)	
Persistence and degradability	No additional information available.
Glycerin (56-81-5)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.87 g O ₂ /g substance
Chemical oxygen demand (COD)	1.16 g O ₂ /g substance
ThOD	1.217 g O ₂ /g substance
BOD (% of ThOD)	0.71

12.3. Bioaccumulative potential

Tetramethylammonium chloride (75-57-0)	
Partition coefficient n-octanol/water (Log Pow)	-1.6 Source: ECHA
Glycerin (56-81-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.75 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Tetramethylammonium chloride (75-57-0)	
Organic Carbon Normalized Adsorption Coefficient (Log K _{oc})	1.961421
Glycerin (56-81-5)	
Surface tension	0.0634 N/m (20 °C, 1000 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

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SECTION 13 Disposal considerations

- Regional waste regulation
- : Dispose of in accordance with applicable federal, state, and local regulations.
- Waste treatment methods
- : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

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15.2. International regulations

CANADA

Tetramethylammonium chloride (75-57-0)
Listed on the Canadian DSL (Domestic Substances List)

Glycerin (56-81-5)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Amplification Master Mix
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

Tetramethylammonium chloride (75-57-0)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Glycerin (56-81-5)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Glycerin(56-81-5)	U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16 Other information

According to 29CFR 1910.1200 OSHA Hazard Communication Standard (HCS 2024) and the Hazardous Products Regulation (WHMIS 2015 rev 2022)

Revision date : 6/26/2025

Issue date : 6/26/2025

Full text of hazard classes and H-statements	
H302	Harmful if swallowed
H372	Causes damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), USA

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.