

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 07/23/2020
Part Number: 79-10260

Reviewed on 07/15/2020
Revision Number: 2

* 1 Identification

- **Product Identifier**
- **Trade Name:** T2SARS-CoV-2™ Reagent Tray Kit, T2SARS-CoV-2™ Reagent Tray
- **Product Number:** 80-10283, 80-10284
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** For use only with T2Dx® Instrument.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
T2 Biosystems, Inc.
101 Hartwell Avenue
Lexington, MA 02421
Phone: +1-781-457-1200
Fax: +1-781-357-3080
Email: t2service@t2biosystems.com
www.t2biosystems.com
- **Emergency telephone number:** (877) 504-8282

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Acute 3 H402 Harmful to aquatic life.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Warning
- **Hazard-determining components of labeling:**
2-methyl-2H-isothiazol-3-one
- **Hazard statements:**
H317 May cause an allergic skin reaction.
H402 Harmful to aquatic life.
- **Precautionary statements:**
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P302+P352 If on skin: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

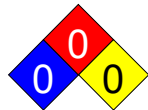
(Contd. on page 2)

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Trade Name: T2SARS-CoV-2™ Reagent Tray Kit, T2SARS-CoV-2™ Reagent Tray· **NFPA ratings (scale 0 - 4)**

Health = 0
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 0
Fire = 0
Physical Hazard = 0

· **Hazard(s) not otherwise classified (HNOC):** None known* **3 Composition/Information on Ingredients**· **Chemical characterization: Mixtures**· **Description:** Mixture of substances listed below with non-hazardous additions.· **Dangerous Components:**

CAS: 56-81-5 RTECS: MA 8050000	Glycerol	≤2.5%
CAS: 2682-20-4 RTECS: NX8157080	2-methyl-2H-isothiazol-3-one ⚠ Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1A, H317	≤2.5%
CAS: 1310-73-2	Sodium Hydroxide ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	<0.5%

· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

* **4 First-Aid Measures**· **Description of first aid measures**· **General information:** If symptoms persist, call a physician.· **After inhalation:** In case of unconsciousness place patient stably in the side position for transportation.· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

If eye irritation occurs, consult a doctor.

Rinse opened eye for several minutes under running water.

· **After swallowing:**

Never give anything by mouth to an unconscious person.

Rinse mouth with water.

· **Information for doctor**· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures· **Extinguishing media**· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

(Contd. on page 3)

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- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

56-81-5	Glycerol	45 mg/m ³
1310-73-2	Sodium Hydroxide	0.5 mg/m ³

· **PAC-2:**

56-81-5	Glycerol	180 mg/m ³
1310-73-2	Sodium Hydroxide	5 mg/m ³

· **PAC-3:**

56-81-5	Glycerol	1,100 mg/m ³
1310-73-2	Sodium Hydroxide	50 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

*** 8 Exposure Controls/Personal Protection**

- **Additional information about design of technical systems:**
Engineering Controls
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

(Contd. on page 4)

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Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

· **Control parameters:**· **Components with occupational exposure limits:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

56-81-5 Glycerol

PEL Long-term value: 15* 5** mg/m³
mist; *total dust **respirable fraction

TLV TLV withdrawn-insufficient data human occup. exp.

· **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

· **Exposure controls:**· **Personal protective equipment**· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

Follow OSHA regulations for respirators found in 29 CFR 1910.134 or European Standard EN 149. Respiratory protection approved by NIOSH / MSHA or EN is recommended for use in airborne concentrations above the identified exposure limits. Where there are no required / recommended exposure limits, personal protection measures should be incorporated when potential concentrations in the air can exceed 10 mg / m³ of total dust and 3 mg / m³ of respirable dust (particles that do not contain asbestos and <1 % crystalline silica).

· **Protection of hands:**

Protective gloves

· **Material of gloves:** Nitrile rubber, NBR

· **Penetration time of glove material:**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**

Goggles recommended during refilling.

· **Body protection:** Lab coat

· **Limitation and supervision of exposure into the environment:**

Keep away from drains, surface and ground waters.

Avoid release into the environment.

* **9 Physical and Chemical Properties**· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:

Liquid

Color:

Clear with brown particles

(Contd. on page 5)

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- **Odor:** Odorless
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
 - Melting point/Melting range:** Not determined.
 - Boiling point/Boiling range:** ≥100 °C (≥212 °F)
- **Flash point:** None
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** Not applicable
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure @ 20 °C (68 °F):** ≤23 hPa (≤17.3 mm Hg)
- **Density:**
 - Relative density:** Not determined.
 - Vapor density:** Not determined.
 - Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 1.7 %
 - VOC content:** 0.00 %
- **Other information:** 0.0 g/l / 0.00 lb/gal
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Strong oxidizing agents, Dimethyl sulfoxide, Halogenated hydrocarbon, Metals, Acids, and Acid chloride.
- **Incompatible materials:** Strong oxidizing agents, Dimethyl sulfoxide, Halogenated hydrocarbon, Metals, Acids, and Acid chloride.
- **Hazardous decomposition products:** No dangerous decomposition products known.

(Contd. on page 6)

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Trade Name: T2SARS-CoV-2™ Reagent Tray Kit, T2SARS-CoV-2™ Reagent Tray**11 Toxicological Information**· **Information on toxicological effects:**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:****56-81-5 Glycerol**

Oral	LD50	12,600 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (Rabbit)
Inhalative	LC50/96 hours	>50,000 mg/l (Trout)

2682-20-4 2-methyl-2H-isothiazol-3-one

Oral	LD50	1,091 mg/kg (Rat) (female)
Dermal	LD50	>5,000 mg/kg (Rat)

· **Primary irritant effect:**· **On the skin:** May cause an allergic skin reaction.· **On the eye:** No irritating effect.· **Sensitization:** Sensitization possible through skin contact.· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories:**· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information· **Toxicity:**· **Aquatic toxicity:**

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

· **Persistence and degradability:** No further relevant information available.· **Behavior in environmental systems:**· **Bioaccumulative potential:** No further relevant information available.· **Mobility in soil:** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Harmful to fish· **Additional ecological information:**· **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

· **Results of PBT and vPvB assessment:**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects:** No further relevant information available.

(Contd. on page 7)

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Trade Name: T2SARS-CoV-2™ Reagent Tray Kit, T2SARS-CoV-2™ Reagent Tray**13 Disposal Considerations**

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

7732-18-5	Water, distilled water, deionized water	ACTIVE
7447-40-7	Potassium Chloride	ACTIVE
56-81-5	Glycerol	ACTIVE
1310-73-2	Sodium Hydroxide	ACTIVE
2682-20-4	2-methyl-2H-isothiazol-3-one	ACTIVE
3483-12-3	(R*,R*)-1,4-dimercaptobutane-2,3-diol	ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients are listed.

· **California Proposition 65:**· **Chemicals known to cause cancer:**

None of the ingredients are listed.

(Contd. on page 8)

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· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients are listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients are listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients are listed.		
· New Jersey Right-to-Know List:		
56-81-5	Glycerol	
1310-73-2	Sodium Hydroxide	
· New Jersey Special Hazardous Substance List:		
1310-73-2	Sodium Hydroxide	CO, R1
· Pennsylvania Right-to-Know List:		
56-81-5	Glycerol	
1310-73-2	Sodium Hydroxide	
· Pennsylvania Special Hazardous Substance List:		
1310-73-2	Sodium Hydroxide	E
· Carcinogenic categories:		
· EPA (Environmental Protection Agency):		
None of the ingredients are listed.		
· TLV (Threshold Limit Value established by ACGIH):		
None of the ingredients are listed.		
· NIOSH-Ca (National Institute for Occupational Safety and Health):		
None of the ingredients are listed.		
· GHS label elements		
The product is classified and labeled according to the Globally Harmonized System (GHS).		
· Hazard pictograms:		



- **Signal word:** Warning
- **Hazard-determining components of labeling:**
2-methyl-2H-isothiazol-3-one
- **Hazard statements:**
H317 May cause an allergic skin reaction.
H402 Harmful to aquatic life.
- **Precautionary statements:**
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P302+P352 If on skin: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
P363 Wash contaminated clothing before reuse.

(Contd. on page 9)

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Trade Name: T2SARS-CoV-2™ Reagent Tray Kit, T2SARS-CoV-2™ Reagent Tray

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

None of the ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of last revision/ revision number:** 07/23/2020 / 2

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety and Health
 OSHA: Occupational Safety & Health Administration
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 Acute Tox. 4: Acute toxicity – Category 4
 Acute Tox. 3: Acute toxicity – Category 3
 Skin Corr. 1A: Skin corrosion/irritation – Category 1A
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Skin Sens. 1A: Skin sensitisation – Category 1A
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· *** Data compared to the previous version altered.**

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