

MATERIAL SAFETY DATA SHEET

PRODUCT AND COMPANY INFORMATION

- **Product name:** double-stranded RNA (dsRNA) ELISA Kit – 48 Tests
- **Catalog number:** DSRNA-48T
- **Chemical name or synonyms:** none
- **Kit Content**

Letter	Component	Quantity	Storage
A	Anti-dsRNA coated microtiter strips		+4°C
B	STD 1: unmodified, 5 ng/μL		+4°C
C	STD 2: pUTP modified, 5 ng/μL		+4°C
D	STD 3: N1-Me-pUTP modified, 5 ng/μL		+4°C
E	STD 4: 5-OMe-UTP modified, 5 ng/μL		+4°C
F	Detection Antibody : Biotin-conjugated Antibodies (100x)		+4°C
G	Streptavidin-HRP (100x)		+4°C
H	Dilution Buffer 1		+4°C
I	Dilution Buffer 2		+4°C
J	Wash Buffer Concentrate (20x)		+4°C
K	TMB Substrate		+4°C
L	Stop Solution		+4°C
M	Plate Sealer		+4°C

- **Contact:**

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SECTION 1-PRODUCT AND COMPANY INFORMATION

- **Product name:** Anti-dsRNA coated microtiter strips
- **Catalog number:** Component A of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

- **GHS Classification**
No
- **GHS Label element**
- Signal Word: None
- Hazard Statements: None
- Pictograms: None

- This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- This product contains hazardous carcinogens (Yes; No; N/A): **No**
- This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: Anti-dsRNA coated microtiter strips.

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>Classification</u>
Anti-dsRNA monoclonal antibody	N/A	< 1%	No
Polystyrene (microtiter strip)	9003-53-6	>95%	No
Coating buffer (salts, phosphate)	N/A	< 1%	No

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

- **Effects and symptoms:**
 - *Inhalation* May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
 - *Ingestion* May be harmful in case of ingestion.
 - *Skin contact* May cause skin irritation, redness, itching.
 - *Eye contact* Slightly hazardous in case of eye contact.
 - *Aggravating conditions* Chronic exposure may develop allergic reactions in sensitive individuals.

- **First-Aid measures:**
 - *Inhalation* Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
 - *Ingestion* Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
 - *Skin contact* In case of contact, immediately wash skin with soap and copious amounts of water.
 - *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
 - *Notes to physician* Not available.
 - *Protection of first-aiders* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- **Extinguishing media:** Water spray, carbon dioxide, dry chemical powder or appropriate foam.
- **Flammability of the product:** Not available.
- **Flash Point:** Not available.
- **Fire hazards in presence of various substances:** Not considered to be flammable.
- **Fire fighting media and instructions:** Use an extinguish agent suitable for surrounding fires.
- **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- **Hazardous thermal decomposition products:** Not available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Safety glasses, lab coat and gloves.
- **Environmental precautions and clean-up methods:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.
- **Small spill and leak:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
- **Additional information:** No dangerous substances are released.

SECTION 7 – HANDLING AND STORAGE

- **Handling:** Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure.
- **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- **Packaging materials Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Recommended monitoring procedures

Contains no substances with occupational exposure limit values.

Engineering measures :

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- **Eyes:** Safety glasses.
- **Body:** Lab coat and gloves.
- **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**
 - **Physical State:** Solid.
 - **Color:** Not available.
 - **Odor:** Not available.
 - **Taste:** Not available.



Molecular weight: Not available.

- **pH:** Not available
- **Boiling point:** Not available
- **Decomposition temperature:** Not available
- **Melting point:** Not available.
- **Flash point:** Not available.
- **Dispersion properties:** Not applicable.
- **Solubility:** Not available
- **Percent volatile by volume:** N/A
- **Evaporation Rate:** N/A

SECTION 10 – STABILITY AND REACTIVITY

- **Stability and reactivity:** The product is stable under recommended storage conditions.
- **Conditions to avoid:** Exposure to light, air or moisture over prolonged periods.
- **Materials to avoid:** Will not occur
- **Hazardous polymerization:** Will not occur.
- **Hazardous decomposition products:** Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

- **Route of exposure:**
 - **Skin absorption:** Data are conclusive but insufficient for classification.
 - **Skin contact:** Data are conclusive but insufficient for classification..
 - **Eye contact:** Data are conclusive but insufficient for classification.
 - **Inhalation:** Data are conclusive but insufficient for classification.
 - **Ingestion:** Data are conclusive but insufficient for classification.
- **Toxicity on animals:**
 - **LD50:** Not available.
 - **LC50:** Not available.
- **Chronic effects on humans:** Carcinogenic effects: classified none. by NIOSH. By OSHA.
- **Other toxic effects on humans:** None.

SECTION 12 – ECOLOGICAL INFORMATION

- No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

- **Waste stream:** Not available.
- **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- **European waste catalogue (EWC):** Not available.
- **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

RCRA (Lists of Hazardous Wastes,
40 CFR 261 Subpart D):

Not applicable

CLEAN AIR ACT (SEC. 112.
Hazardous Air Pollutants):

Not applicable

CLEAN WATER ACT (RQ, 40 CFR):

Not applicable

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are:
none.

Section 311 - 312: Components present in this product at a level which could require reporting are:
none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

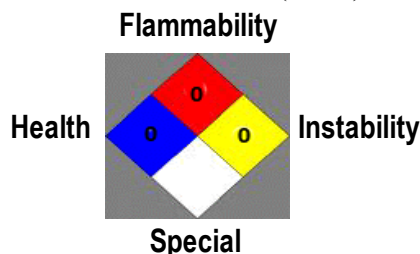
- This product is not classified according to the EU regulations.

SECTION 16 – OTHER INFORMATION

◆ **Hazardous Material Information System (U.S.A.):**

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

◆ **Revisions:**

Issue Date: 30-Oct-2025

Last Revision Date: 24-Nov-2025

Revision note: Update section 2,11,12,15.

◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1-PRODUCT AND COMPANY INFORMATION

- **Product name:** STD 1: unmodified, 5 ng/μL
- **Catalog number:** Component B of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

- **GHS Classification**
No
- **GHS Label element**
- Signal Word: None
- Hazard Statements: None
- Pictograms: None
- This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- This product contains hazardous carcinogens (Yes; No; N/A): **No**
- This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: unmodified double-stranded RNA in solution in TE Buffer.

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>Classification</u>
dsRNA oligonucleotide	N/A	0.1-5%	No
Tris (hydroxymethyl) aminomethane	77-86-1	1-10%	No
EDTA	6381-92-6	0.01-0.1%	No
Water	7732-18-5	80-90%	No

No components need to be disclosed according to the applicable regulations.

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

- **Effects and symptoms:**
 - *Inhalation* May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
 - *Ingestion* May be harmful in case of ingestion.
 - *Skin contact* May cause skin irritation, redness, itching.
 - *Eye contact* Slightly hazardous in case of eye contact.
 - *Aggravating conditions* Chronic exposure may develop allergic reactions in sensitive individuals.
- **First-Aid measures:**
 - *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
 - *Ingestion* If swallowed, wash out mouth with water provided person is conscious. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
 - *Skin contact* In case of contact, immediately wash skin with soap and copious amounts of water.

Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

○ **Notes to physician**

Not available.

○ **Protection of first-aiders**

Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- **Extinguishing media:** Water spray, carbon dioxide, dry chemical powder or appropriate foam.
- **Flammability of the product:** Not available.
- **Flash Point:** Not available.
- **Fire hazards in presence of various substances:** Not considered to be flammable.
- **Fire fighting media and instructions:** Use an extinguish agent suitable for surrounding fires.
- **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- **Hazardous thermal decomposition products:** Not available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Safety glasses, lab coat and gloves.
- **Environmental precautions and clean-up methods:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.
- **Small spill and leak:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
- **Additional information:** No dangerous substances are released.

SECTION 7 – HANDLING AND STORAGE

- **Handling:** Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure.
- **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- **Packaging materials Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be carefully followed.

Engineering measures :

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- **Eyes:** Safety glasses.
- **Body:** Lab coat and gloves.
- **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.



- **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Colorless
 - **Odor:** Not available.
 - **Taste:** Not available.
- **Molecular weight:** Not available.
- **pH:** Between 4 and 11
- **Boiling point:** 100°C (212 F).
- **Decomposition temperature:** 100°C (212 F)
- **Melting point:** Not available.
- **Flash point:** Not available.
- **Dispersion properties:** Not applicable.
- **Solubility:** Readily miscible in water.
- **Percent volatile by volume:** N/A
- **Evaporation Rate:** N/A

SECTION 10 – STABILITY AND REACTIVITY

- **Stability and reactivity:** The product is stable under recommended storage conditions.
- **Conditions to avoid:** Exposure to light, air or moisture over prolonged periods.
- **Materials to avoid:** Strong acids, strong bases, strong oxidizing agents.
- **Hazardous polymerization:** Will not occur.
- **Hazardous decomposition products:** Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product/ingredient	ORAL LD50	Dermal LD50	Inhalation LC50
Tris (hydroxymethyl) aminomethane	LD50 = 5900 mg/kg (Rat)	LD50 > 5000 mg/kg (Rat)	Not listed
Ethylenediamine tetraacetic acid (EDTA)	4500 mg/kg (Rat) >2000 mg/kg (Rat)	Not listed	1 mg/l (rat)

Moderately toxic by ingestion, slightly toxic by dermal absorption

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification. **Skin corrosion/irritation** Data are conclusive but insufficient for classification

Serious eye damage/irritation Data are conclusive but insufficient for classification.

Skin corrosion/irritation Data are conclusive but insufficient for classification

Respiratory or skin

Sensitization: Data are conclusive but insufficient for classification

Specific target organ toxicity

(STOT)–single exposure

Data are conclusive but insufficient for classification

Specific target organ toxicity

(STOT)–repeated exposure

Data are conclusive but insufficient for classification

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification



SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	Water Flea	log Pow
Ethylenediamine tetraacetic acid (EDTA)	EC50: = 1.01 mg/L, 72h (Desmodesmus subspicatus)	N/A	LC50: 34 - 62 mg/L, 96h static (Lepomis macrochirus) LC50: 44.2 - 76.5 mg/L, 96h static (Pimephales promelas)	N/A	EC50: = 113 mg/L, 48h Static (Daphnia magna)	N/A

No data available No data available No data available No data available logPow-2.66

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment No information available.

Other adverse effects No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

- **Waste stream:** Not available.
- **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- **European waste catalogue (EWC):** Not available.
- **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Ethylenediamine tetraacetic acid (EDTA): CWA reportable qties: 5000lbs

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Components	Massachussets	New Jersey	Pennsylvania	Illinois	Rhode Island
Water			X		
Ethylenediamine tetraacetic acid	X	X	X		

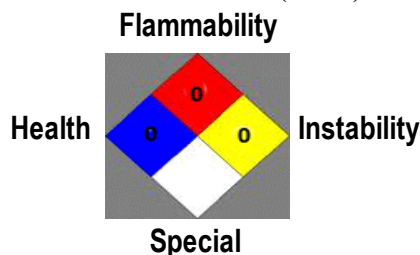
- This product is not classified according to the EU regulations.

SECTION 16 – OTHER INFORMATION

Hazardous Material Information System (U.S.A.):

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

National Fire Protection Association (U.S.A.):



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

Revisions:

Issue Date: 30-Oct-25
Last Revision Date: 24-Nov-2025
Revision note: New format. updated Section 2,8,15,16.

Other Comments:

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1-PRODUCT AND COMPANY INFORMATION

- **Product name:** STD 2: pUTP modified, 5 ng/μL
- **Catalog number:** Component C of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

- **GHS Classification**
No
- **GHS Label element**
- Signal Word: None
- Hazard Statements: None
- Pictograms: None
- This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- This product contains hazardous carcinogens (Yes; No; N/A): **No**
- This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: pseudouridine-modified double-stranded RNA in solution in TE Buffer.

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>Classification</u>
dsRNA oligonucleotide	N/A	0.1-5%	No
Tris (hydroxymethyl) aminomethane	77-86-1	1-10%	No
EDTA	6381-92-6	0.01-0.1%	No
Water	7732-18-5	80-90%	No

No components need to be disclosed according to the applicable regulations.

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

- **Effects and symptoms:**
 - *Inhalation* May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
 - *Ingestion* May be harmful in case of ingestion.
 - *Skin contact* May cause skin irritation, redness, itching.
 - *Eye contact* Slightly hazardous in case of eye contact.
 - *Aggravating conditions* Chronic exposure may develop allergic reactions in sensitive individuals.
- **First-Aid measures:**
 - *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
 - *Ingestion* If swallowed, wash out mouth with water provided person is conscious. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
 - *Skin contact* In case of contact, immediately wash skin with soap and copious amounts of water.
 - *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

SECTION 5 – FIRE FIGHTING MEASURES

- **Extinguishing media:** Water spray, carbon dioxide, dry chemical powder or appropriate foam.
- **Flammability of the product:** Not available.
- **Flash Point:** Not available.
- **Fire hazards in presence of various substances:** Not considered to be flammable.
- **Fire fighting media and instructions:** Use an extinguish agent suitable for surrounding fires.
- **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- **Hazardous thermal decomposition products:** Not available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Safety glasses, lab coat and gloves.
- **Environmental precautions and clean-up methods:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.
- **Small spill and leak:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
- **Additional information:** No dangerous substances are released.

SECTION 7 – HANDLING AND STORAGE

- **Handling:** Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure.
- **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- **Packaging materials Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be carefully followed.

Engineering measures :

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- **Eyes:** Safety glasses.
- **Body:** Lab coat and gloves.
- **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- **Physical State:** Liquid.
- **Color:** Colorless
- **Odor:** Not available.
- **Taste:** Not available.

- **Molecular weight:** Not available.
- **pH:** Between 4 and 11
- **Boiling point:** 100°C (212 F).
- **Decomposition temperature:** 100°C (212 F)
- **Melting point:** Not available.
- **Flash point:** Not available.
- **Dispersion properties:** Not applicable.
- **Solubility:** Readily miscible in water.
- **Percent volatile by volume:** N/A
- **Evaporation Rate:** N/A

SECTION 10 – STABILITY AND REACTIVITY

- **Stability and reactivity:** The product is stable under recommended storage conditions.
- **Conditions to avoid:** Exposure to light, air or moisture over prolonged periods.
- **Materials to avoid:** Strong acids, strong bases, strong oxidizing agents.
- **Hazardous polymerization:** Will not occur.
- **Hazardous decomposition products:** Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product/ingredient	ORAL LD50	Dermal LD50	Inhalation LC50
Tris (hydroxymethyl) aminomethane	LD50 = 5900 mg/kg (Rat)	LD50 > 5000 mg/kg (Rat)	Not listed
Ethylenediamine tetraacetic acid (EDTA)	4500 mg/kg (Rat) >2000 mg/kg (Rat)	Not listed	1 mg/l (rat)

Moderately toxic by ingestion, slightly toxic by dermal absorption

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification. **Skin corrosion/irritation** Data are conclusive but insufficient for classification

Serious eye damage/irritation Data are conclusive but insufficient for classification.

Skin corrosion/irritation Data are conclusive but insufficient for classification

Respiratory or skin

Sensitization: Data are conclusive but insufficient for classification

Specific target organ toxicity

(STOT)–single exposure

Data are conclusive but insufficient for classification

Specific target organ toxicity

(STOT)–repeated exposure

Data are conclusive but insufficient for classification

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	Water Flea	log Pow
Ethylenediamine tetraacetic acid (EDTA)	EC50: = 1.01 mg/L, 72h (Desmodesmus subspicatus)	N/A	LC50: 34 - 62 mg/L, 96h static (Lepomis macrochirus) LC50: 44.2 - 76.5 mg/L, 96h static (Pimephales promelas)	N/A	EC50: = 113 mg/L, 48h Static (Daphnia magna)	N/A

No data available No data available No data available No data available logPow-2.66

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment No information available.

Other adverse effects No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

- **Waste stream:** Not available.
- **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- **European waste catalogue (EWC):** Not available.
- **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Ethylenediamine tetraacetic acid (EDTA): CWA reportable qties: 5000lbs

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Components	Massachussets	New Jersey	Pennsylvania	Illinois	Rhode Island
Water			X		
Ethylenediamine tetraacetic acid	X	X	X		

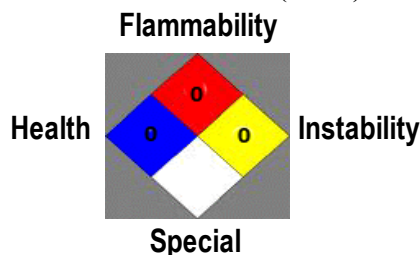
- This product is not classified according to the EU regulations.

SECTION 16 – OTHER INFORMATION

Hazardous Material Information System (U.S.A.):

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

National Fire Protection Association (U.S.A.):



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

Revisions:

Issue Date: 30-Oct-25
Last Revision Date: 24-Nov-2025
Revision note: New format. updated Section 2,8,15,16.

Other Comments:

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1-PRODUCT AND COMPANY INFORMATION

- **Product name:** STD 3: N1-Me-pUTP modified, 5 ng/μL
- **Catalog number:** Component D of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

- **GHS Classification**
No
- **GHS Label element**
- Signal Word: None
- Hazard Statements: None
- Pictograms: None
- This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- This product contains hazardous carcinogens (Yes; No; N/A): **No**
- This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: N1methylpseudouridine-modified double-stranded RNA in solution in TE Buffer.

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>Classification</u>
dsRNA oligonucleotide	N/A	0.1-5%	No
Tris (hydroxymethyl) aminomethane	77-86-1	1-10%	No
EDTA	6381-92-6	0.01-0.1%	No
Water	7732-18-5	80-90%	No

No components need to be disclosed according to the applicable regulations.

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

- **Effects and symptoms:**
 - *Inhalation* May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
 - *Ingestion* May be harmful in case of ingestion.
 - *Skin contact* May cause skin irritation, redness, itching.
 - *Eye contact* Slightly hazardous in case of eye contact.
 - *Aggravating conditions* Chronic exposure may develop allergic reactions in sensitive individuals.
- **First-Aid measures:**
 - *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
 - *Ingestion* If swallowed, wash out mouth with water provided person is conscious. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
 - *Skin contact* In case of contact, immediately wash skin with soap and copious amounts of water.
 - *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

SECTION 5 – FIRE FIGHTING MEASURES

- **Extinguishing media:** Water spray, carbon dioxide, dry chemical powder or appropriate foam.
- **Flammability of the product:** Not available.
- **Flash Point:** Not available.
- **Fire hazards in presence of various substances:** Not considered to be flammable.
- **Fire fighting media and instructions:** Use an extinguish agent suitable for surrounding fires.
- **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- **Hazardous thermal decomposition products:** Not available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Safety glasses, lab coat and gloves.
- **Environmental precautions and clean-up methods:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.
- **Small spill and leak:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
- **Additional information:** No dangerous substances are released.

SECTION 7 – HANDLING AND STORAGE

- **Handling:** Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure.
- **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- **Packaging materials Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be carefully followed.

Engineering measures :

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- **Eyes:** Safety glasses.
- **Body:** Lab coat and gloves.
- **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Colorless
 - **Odor:** Not available.
 - **Taste:** Not available.
- **Molecular weight:** Not available.
- **pH:** Between 4 and 11
- **Boiling point:** 100°C (212 F).
- **Decomposition temperature:** 100°C (212 F)
- **Melting point:** Not available.
- **Flash point:** Not available.
- **Dispersion properties:** Not applicable.
- **Solubility:** Readily miscible in water.
- **Percent volatile by volume:** N/A
- **Evaporation Rate:** N/A

SECTION 10 – STABILITY AND REACTIVITY

- **Stability and reactivity:** The product is stable under recommended storage conditions.
- **Conditions to avoid:** Exposure to light, air or moisture over prolonged periods.
- **Materials to avoid:** Strong acids, strong bases, strong oxidizing agents.
- **Hazardous polymerization:** Will not occur.
- **Hazardous decomposition products:** Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product/ingredient	ORAL LD50	Dermal LD50	Inhalation LC50
Tris (hydroxymethyl) aminomethane	LD50 = 5900 mg/kg (Rat)	LD50 > 5000 mg/kg (Rat)	Not listed
Ethylenediamine tetraacetic acid (EDTA)	4500 mg/kg (Rat) >2000 mg/kg (Rat)	Not listed	1 mg/l (rat)

Moderately toxic by ingestion, slightly toxic by dermal absorption

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification. **Skin corrosion/irritation** Data are conclusive but insufficient for classification

Serious eye damage/irritation Data are conclusive but insufficient for classification.

Skin corrosion/irritation Data are conclusive but insufficient for classification

Respiratory or skin

Sensitization: Data are conclusive but insufficient for classification

Specific target organ toxicity

(STOT)–single exposure

Data are conclusive but insufficient for classification

Specific target organ toxicity

(STOT)–repeated exposure

Data are conclusive but insufficient for classification

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	Water Flea	log Pow
Ethylenediamine tetraacetic acid (EDTA)	EC50: = 1.01 mg/L, 72h (Desmodesmus subspicatus)	N/A	LC50: 34 - 62 mg/L, 96h static (Lepomis macrochirus) LC50: 44.2 - 76.5 mg/L, 96h static (Pimephales promelas)	N/A	EC50: = 113 mg/L, 48h Static (Daphnia magna)	N/A

No data available No data available No data available No data available logPow-2.66

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment No information available.

Other adverse effects No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

- **Waste stream:** Not available.
- **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- **European waste catalogue (EWC):** Not available.
- **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Ethylenediamine tetraacetic acid (EDTA): CWA reportable qties: 5000lbs

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Components	Massachussets	New Jersey	Pennsylvania	Illinois	Rhode Island
Water			X		
Ethylenediamine tetraacetic acid	X	X	X		

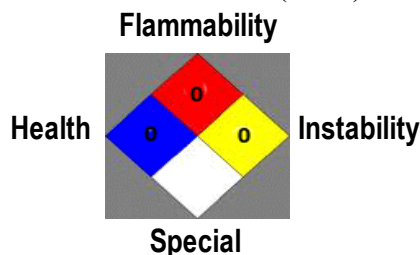
- This product is not classified according to the EU regulations.

SECTION 16 – OTHER INFORMATION

Hazardous Material Information System (U.S.A.):

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

National Fire Protection Association (U.S.A.):



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

Revisions:

Issue Date: 30-Oct-25

Last Revision Date: 24-Nov-2025

Revision note: New format. updated Section 2,8,15,16.

Other Comments:

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1-PRODUCT AND COMPANY INFORMATION

- **Product name:** STD 4: 5-OMe-UTP modified, 5 ng/μL
- **Catalog number:** Component E of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

- **GHS Classification**
No
- **GHS Label element**
- Signal Word: None
- Hazard Statements: None
- Pictograms: None

- This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- This product contains hazardous carcinogens (Yes; No; N/A): **No**
- This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: 5-methoxyuridine-modified double-stranded RNA in solution in TE Buffer.

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>Classification</u>
dsRNA oligonucleotide	N/A	0.1-5%	No
Tris (hydroxymethyl) aminomethane	77-86-1	1-10%	No
EDTA	6381-92-6	0.01-0.1%	No
Water	7732-18-5	80-90%	No

No components need to be disclosed according to the applicable regulations.

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

- **Effects and symptoms:**
 - *Inhalation* May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
 - *Ingestion* May be harmful in case of ingestion.
 - *Skin contact* May cause skin irritation, redness, itching.
 - *Eye contact* Slightly hazardous in case of eye contact.
 - *Aggravating conditions* Chronic exposure may develop allergic reactions in sensitive individuals.

- **First-Aid measures:**
 - *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
 - *Ingestion* If swallowed, wash out mouth with water provided person is conscious. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
 - *Skin contact* In case of contact, immediately wash skin with soap and copious amounts of water.
 - *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

SECTION 5 – FIRE FIGHTING MEASURES

- **Extinguishing media:** Water spray, carbon dioxide, dry chemical powder or appropriate foam.
- **Flammability of the product:** Not available.
- **Flash Point:** Not available.
- **Fire hazards in presence of various substances:** Not considered to be flammable.
- **Fire fighting media and instructions:** Use an extinguish agent suitable for surrounding fires.
- **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- **Hazardous thermal decomposition products:** Not available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Safety glasses, lab coat and gloves.
- **Environmental precautions and clean-up methods:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.
- **Small spill and leak:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
- **Additional information:** No dangerous substances are released.

SECTION 7 – HANDLING AND STORAGE

- **Handling:** Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure.
- **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- **Packaging materials Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be carefully followed.

Engineering measures :

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- **Eyes:** Safety glasses.
- **Body:** Lab coat and gloves.
- **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Colorless
 - **Odor:** Not available.
 - **Taste:** Not available.
- **Molecular weight:** Not available.
- **pH:** Between 4 and 11
- **Boiling point:** 100°C (212 F).
- **Decomposition temperature:** 100°C (212 F)
- **Melting point:** Not available.
- **Flash point:** Not available.
- **Dispersion properties:** Not applicable.
- **Solubility:** Readily miscible in water.
- **Percent volatile by volume:** N/A
- **Evaporation Rate:** N/A

SECTION 10 – STABILITY AND REACTIVITY

- **Stability and reactivity:** The product is stable under recommended storage conditions.
- **Conditions to avoid:** Exposure to light, air or moisture over prolonged periods.
- **Materials to avoid:** Strong acids, strong bases, strong oxidizing agents.
- **Hazardous polymerization:** Will not occur.
- **Hazardous decomposition products:** Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product/ingredient	ORAL LD50	Dermal LD50	Inhalation LC50
Tris (hydroxymethyl) aminomethane	LD50 = 5900 mg/kg (Rat)	LD50 > 5000 mg/kg (Rat)	Not listed
Ethylenediamine tetraacetic acid (EDTA)	4500 mg/kg (Rat) >2000 mg/kg (Rat)	Not listed	1 mg/l (rat)

Moderately toxic by ingestion, slightly toxic by dermal absorption

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification. **Skin corrosion/irritation** Data are conclusive but insufficient for classification

Serious eye damage/irritation Data are conclusive but insufficient for classification.

Skin corrosion/irritation Data are conclusive but insufficient for classification

Respiratory or skin

Sensitization: Data are conclusive but insufficient for classification

Specific target organ toxicity

(STOT)–single exposure

Data are conclusive but insufficient for classification

Specific target organ toxicity

(STOT)–repeated exposure

Data are conclusive but insufficient for classification

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	Water Flea	log Pow
Ethylenediamine tetraacetic acid (EDTA)	EC50: = 1.01 mg/L, 72h (Desmodesmus subspicatus)	N/A	LC50: 34 - 62 mg/L, 96h static (Lepomis macrochirus) LC50: 44.2 - 76.5 mg/L, 96h static (Pimephales promelas)	N/A	EC50: = 113 mg/L, 48h Static (Daphnia magna)	N/A

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment No information available.

Other adverse effects No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

- **Waste stream:** Not available.
- **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- **European waste catalogue (EWC):** Not available.
- **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Ethylenediamine tetraacetic acid (EDTA): CWA reportable qties: 5000lbs

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Components	Massachussets	New Jersey	Pennsylvania	Illinois	Rhode Island
Water			X		
Ethylenediamine tetraacetic acid	X	X	X		

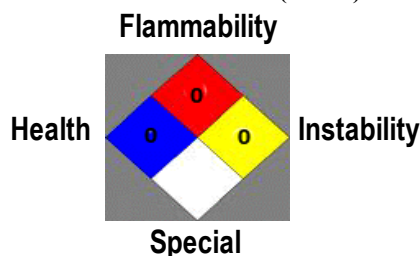
- This product is not classified according to the EU regulations.

SECTION 16 – OTHER INFORMATION

Hazardous Material Information System (U.S.A.):

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

National Fire Protection Association (U.S.A.):



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

Revisions:

Issue Date: 30-Oct-25
Last Revision Date: 24-Nov-2025
Revision note: New format. updated Section 2,8,15,16.

Other Comments:

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1 - PRODUCT AND COMPANY INFORMATION

- **Product name:** Detection Antibody : Biotin-conjugated Antibodies (100x)
- **Catalog number:** Component F of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

◆ **GHS Classification**

No

◆ **GHS Label element**

Signal Word: None
Hazard Statements: None
Pictograms: None

- ◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- ◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**
- ◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: Biotin conjugated antibody dissolved in phosphate saline buffer.

Ingredient name	CAS number	%	EINECS	Classification
Phosphate Buffer Saline	None	>90 %	None	None
Biotin-conjugated antibody	None	10 %	None	None

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

◆ **Health Effects:**

Adverse health effects are not expected from the recommended use of this product. Some people may be allergic to the material. Symptoms of exposure may include: fatigue, coughing, weight loss and shortness of breath.

◆ **Primary Routes of Entry:** Skin or eye contact from splashes

◆ **Medical Conditions Aggravated by Exposure:** not known

◆ **Emergency First Aid Procedures:**

- **Skin contact-** Flush contaminated areas with large volume of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if the skin remains irritated.
- **Eye contact-** Flush contaminated eye(s) with large volume of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.
- **Ingestion-** No adverse effects are reasonably anticipated. If any symptoms occur, keep victim warm and calm and get medical attention immediately.
- **Inhalation-** Move victim to fresh air. If breathing becomes difficult, seek medical assistance immediately.

◆ **First-Aid measures:**

- *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.
- *Ingestion* Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- *Skin contact* In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- *Notes to physician* Not available.
- *Protection of first-aiders* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** Not available.
- ◆ **Fire hazards in presence of various substances:** Not considered to be flammable.
- ◆ **Fire fighting media and instructions:** Use dry chemical, CO₂, water spray or foam.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Burning produces irritant fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid breathing vapors or spray mists. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.
- ◆ **Personal protection**
 - **Eyes:** Safety glasses.
 - **Body:** Lab coat and gloves.
 - **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Transparent
 - **Odor:** Not available.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** 7.4
- ◆ **Boiling point:** Not available.
- ◆ **Decomposition temperature:** Not available.
- ◆ **Melting point:** Not available.
- ◆ **Flash point:** Not available.
- ◆ **Dispersion properties:** Not available.
- ◆ **Solubility:** Not available.

SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** The product is stable at a pH between 4 and 11
- ◆ **Conditions to avoid:** pH < 4 and pH > 11, using temperatures < + 2°C and > + 96°C
- ◆ **Materials to avoid:** Strong acids, strong bases and pure organic solvents.
- ◆ **Hazardous polymerization:** Will not occur.



Hazardous decomposition products: Not available.

Hazardous decomposition products: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

- ◆ **Toxicity on animals:**
 - **LD50:** Not available.
 - **LC50:** Not available.
- ◆ **Chronic effects on humans:** Chronic exposure may cause nausea and vomiting. Higher exposure may cause unconsciousness.
- ◆ **Other toxic effects on humans:** Slightly hazardous in case of ingestion, skin or eye contact.

SECTION 12 – ECOLOGICAL INFORMATION

- ◆ No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ **Waste stream:** Not available.
- ◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ **European waste catalogue (EWC):** Not available.
- ◆ **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – OTHER INFORMATION

◆ US Federal Regulations

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Not applicable

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

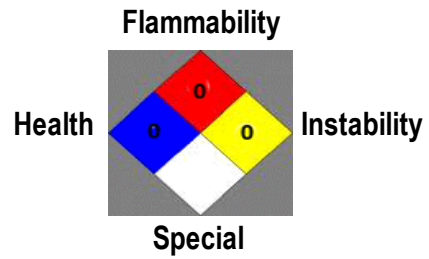
- ◆ This product is not classified according to the EU regulations.



◆ **Hazardous Material Information System (U.S.A.):**

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
 1 = slight
 2 = moderate

3 = high
 4 = extreme
 * = chronic

◆ **Revisions:**

Issue Date: 30-Oct-25
 Last Revision Date: 24-Nov-2025
 Revision note: New format. updated Section 2,8,15,16.

◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1 - PRODUCT AND COMPANY INFORMATION

- **Product name:** Streptavidin-HRP (100×)
- **Catalog number:** Component G of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

◆ **GHS Classification**

No

◆ **GHS Label element**

Signal Word: None
Hazard Statements: None
Pictograms: None

- ◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- ◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**
- ◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: Horse-radish peroxidase dissolved in phosphate saline buffer.

Ingredient name	CAS number	%	EINECS	Classification
Phosphate Buffer Saline	None	>90 %	None	None
Horse-radish peroxidase	None	10 %	None	None

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

◆ **Health Effects:**

Adverse health effects are not expected from the recommended use of this product. Some people may be allergic to the material. Symptoms of exposure may include: fatigue, coughing, weight loss and shortness of breath.

◆ **Primary Routes of Entry:** Skin or eye contact from splashes

◆ **Medical Conditions Aggravated by Exposure:** not known

◆ **Emergency First Aid Procedures:**

- **Skin contact-** Flush contaminated areas with large volume of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if the skin remains irritated.
- **Eye contact-** Flush contaminated eye(s) with large volume of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.
- **Ingestion-** No adverse effects are reasonably anticipated. If any symptoms occur, keep victim warm and calm and get medical attention immediately.
- **Inhalation-** Move victim to fresh air. If breathing becomes difficult, seek medical assistance immediately.

◆ **First-Aid measures:**

- *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.
- *Ingestion* Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- *Skin contact* In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- *Notes to physician* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** Not available.
- ◆ **Fire hazards in presence of various substances:** Not considered to be flammable.
- ◆ **Fire fighting media and instructions:** Use dry chemical, CO₂, water spray or foam.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Burning produces irritant fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid breathing vapors or spray mists. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.
- ◆ **Personal protection**
 - **Eyes:** Safety glasses.
 - **Body:** Lab coat and gloves.
 - **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Transparent
 - **Odor:** Not available.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** 7.4
- ◆ **Boiling point:** Not available.
- ◆ **Decomposition temperature:** Not available.
- ◆ **Melting point:** Not available.
- ◆ **Flash point:** Not available.
- ◆ **Dispersion properties:** Not available.
- ◆ **Solubility:** Not available.

SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** The product is stable at a pH between 4 and 11
- ◆ **Conditions to avoid:** pH < 4 and pH > 11, using temperatures < + 2°C and > + 96°C
- ◆ **Materials to avoid:** Strong acids, strong bases and pure organic solvents.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: Not available.

Hazardous decomposition products: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

◆ **Toxicity on animals:**

- **LD50:** Not available.
- **LC50:** Not available.

◆ **Chronic effects on humans:** Chronic exposure may causes nausea and vomiting. Higher exposure may causes unconsciousness.

◆ **Other toxic effects on humans:** Slightly hazardous in case of ingestion, skin or eye contact.

SECTION 12 – ECOLOGICAL INFORMATION

◆ No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

◆ **Waste stream:** Not available.

◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.

◆ **European waste catalogue (EWC):** Not available.

◆ **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – OTHER INFORMATION

◆ **US Federal Regulations**

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Not applicable

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

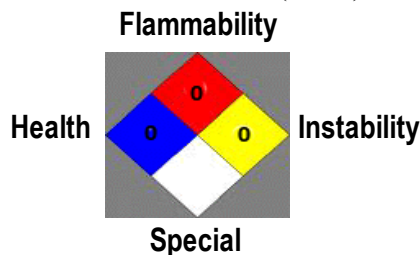
This product is not classified according to the EU regulations.

SECTION 16– OTHER INFORMATION

◆ **Hazardous Material Information System (U.S.A.):**

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

◆ **Revisions:**

Issue Date: 30-Oct-25
Last Revision Date: 24-Nov-2025
Revision note: New format. updated Section 2,8,15,16.

◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

Notes to physician

Not available.

Protection of first-aiders

Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** Not available.
- ◆ **Fire hazards in presence of various substances:** Not considered to be flammable.
- ◆ **Fire fighting media and instructions:** Use dry chemical, CO₂, water spray or foam.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Burning produces irritant fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid breathing vapors or spray mists. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
- ◆ **Personal protection**
 - **Eyes:** Safety glasses.
 - **Body:** Lab coat and gloves.
 - **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Transparent
 - **Odor:** Not available.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** 7.4
- ◆ **Boiling point:** Not available.
- ◆ **Decomposition temperature:** Not available.
- ◆ **Melting point:** Not available.
- ◆ **Flash point:** Not available.
- ◆ **Dispersion properties:** Not available.
- ◆ **Solubility:** Not available.

SECTION 10 – STABILITY AND REACTIVITY

- Stability and reactivity:** The product is stable at a pH between 4 and 11
pH < 4 and pH > 11, using temperatures < + 2°C and > + 96°C
- Conditions to avoid:** Strong acids, strong bases and pure organic solvents.
- Materials to avoid:** Will not occur.
- ◆ **Hazardous polymerization:** Will not occur.
 - ◆ **Hazardous decomposition products:** Not available.
 - ◆ **Hazardous decomposition products:** Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product Information

- Oral LD50** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
- Dermal LD50** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
- Vapor LC50** Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Product/ingredient	ORAL LD50	Dermal LD50	Inhalation LC50
Water	N/A	N/A	N/A
Sodium Chloride	LD50 = 3 g/kg (Rat)	LD50 > 10000 mg/kg (Rabbit)	LC50 > 42 mg/L (Rat) 1 h
Sodium phosphate dibasic	LD50 = 17 g/kg (Rat)	N/A	N/A
Polyoxyethylene(20)sorbitan monolaurate	LD50 = 37000 mg/kg (Rat)	Not listed	LC50 > 5.1 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Irritation :** No information available
- Sensitization** No information available
- Carcinogenicity** Not Listed
- Mutagenic Effects** No information available
- Reproductive Effects** No information available
- Developmental Effects** No information available
- Teratogenicity** No information available
- STOT - single exposure** No information available
- STOT - repeated exposure** No information available
- Aspiration hazard Symptoms / effects,both acute and delayed** No information available

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	Water Flea	log Pow
Sodium chloride	N/A	N/A	Pimephals prome: LC50: 7650 mg/L/96h	N/A	EC50: 1000 mg/L/48h	N/A

Persistence and Degradability Miscible with water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ **Waste stream:** Not available.
- ◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ **European waste catalogue (EWC):** Not available.
- ◆ **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – REGULATORY INFORMATION

◆ **US Federal Regulations**

Component	CAS	TCSA	TSCA Inventory notification Active-Inactive	TSCA - EPA Regulatory Flags
Water	7732-18-5	X	Active	-
Sodium Chloride	7647-14-5	X	Active	-
Sodium phosphate dibasic	7558-79-4	X	Active	-
Polyoxyethylene(20)sorbitan monolaurate	9005-64-5	X	Active	XU

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D):

Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants):

Not applicable

CLEAN WATER ACT (RQ, 40 CFR):

Sodium phosphate dibasic; CWA reportable Qty: 5000 lb

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

U.S. State Right-to-Know Regulations

Components	Massachussets	New Jersey	Pennsylvania	Illinois	Rhode Island
Water			X		
Sodium phosphate dibasic	X	X	X		

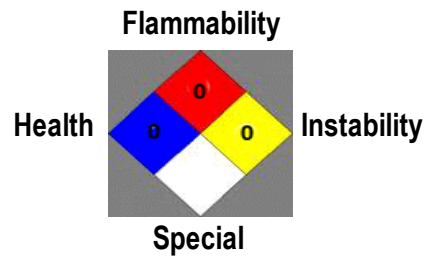
◆ This product is not classified according to the EU regulations.

SECTION 16– OTHER INFORMATION

◆ **Hazardous Material Information System (U.S.A.):**

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
 1 = slight
 2 = moderate

3 = high
 4 = extreme
 * = chronic

◆ **Revisions:**

Issue Date: 30-Oct-25
 Last Revision Date: 24-Nov-2025
 Revision note: New format. updated Section 2,8,15,16.

◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1 - PRODUCT AND COMPANY INFORMATION

- **Product name:** Dilution Buffer 2
- **Catalog number:** Component I of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

◆ **GHS Classification**

No

◆ **GHS Label element**

Signal Word: None
Hazard Statements: None
Pictograms: None

- ◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- ◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**
- ◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: Phosphate Buffer Saline

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>EINECS</u>	<u>Classification</u>
Phosphate Buffer Saline	None	>90 %	None	None

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

◆ **Health Effects:**

Adverse health effects are not expected from the recommended use of this product. Some people may be allergic to the material. Symptoms of exposure may include: fatigue, coughing, weight loss and shortness of breath.

◆ **Primary Routes of Entry:** Skin or eye contact from splashes

◆ **Medical Conditions Aggravated by Exposure:** not known

◆ **Emergency First Aid Procedures:**

- **Skin contact-** Flush contaminated areas with large volume of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if the skin remains irritated.
- **Eye contact-** Flush contaminated eye(s) with large volume of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.
- **Ingestion-** No adverse effects are reasonably anticipated. If any symptoms occur, keep victim warm and calm and get medical attention immediately.
- **Inhalation-** Move victim to fresh air. If breathing becomes difficult, seek medical assistance immediately.

◆ **First-Aid measures:**

- *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.
- *Ingestion* Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- *Skin contact* In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- *Notes to physician* Not available.
- *Protection of first-aiders* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** Not available.
- ◆ **Fire hazards in presence of various substances:** Not considered to be flammable.
- ◆ **Fire fighting media and instructions:** Use dry chemical, CO₂, water spray or foam.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Burning produces irritant fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid breathing vapors or spray mists. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
 - ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
- ◆ **Personal protection**
 - **Eyes:** Safety glasses.
 - **Body:** Lab coat and gloves.
 - **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Transparent
 - **Odor:** Not available.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** 7.4
- ◆ **Boiling point:** Not available.
- ◆ **Decomposition temperature:** Not available.
- ◆ **Melting point:** Not available.
- ◆ **Flash point:** Not available.
- ◆ **Dispersion properties:** Not available.
- ◆ **Solubility:** Not available.

SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** The product is stable at a pH between 4 and 11
- ◆ **Conditions to avoid:** pH < 4 and pH > 11, using temperatures < + 2°C and > + 96°C
- ◆ **Materials to avoid:** Strong acids, strong bases and pure organic solvents.
- ◆ **Hazardous polymerization:** Will not occur.

Hazardous decomposition products: Not available.

Hazardous decomposition products: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

- ◆ **Toxicity on animals:**
 - **LD50:** Not available.
 - **LC50:** Not available.
- ◆ **Chronic effects on humans:** Chronic exposure may causes nausea and vomiting. Higher exposure may causes unconsciousness.
- ◆ **Other toxic effects on humans:** Slightly hazardous in case of ingestion, skin or eye contact.

SECTION 12 – ECOLOGICAL INFORMATION

- ◆ No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ **Waste stream:** Not available.
- ◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ **European waste catalogue (EWC):** Not available.
- ◆ **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – OTHER INFORMATION

◆ **US Federal Regulations**

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Not applicable

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

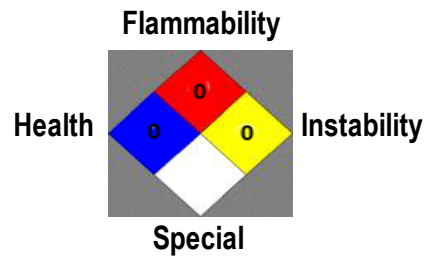
- ◆ This product is not classified according to the EU regulations.

SECTION 16– OTHER INFORMATION

◆ **Hazardous Material Information System (U.S.A.):**

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

◆ **Revisions:**

Issue Date: 30-Oct-25
Last Revision Date: 24-Nov-2025
Revision note: New format. updated Section 2,8,15,16.

◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1 - PRODUCT AND COMPANY INFORMATION

- **Product name:** Wash Buffer Concentrate (20X)
- **Catalog number:** Component J of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

◆ **GHS Classification**

No

◆ **GHS Label element**

Signal Word: None
Hazard Statements: None
Pictograms: None

- ◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- ◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**
- ◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: Washing Buffer based on phosphate Saline salts and surfactants.

Ingredient name	CAS number	%	EINECS	Classification
Water	7732-18-5	<70%	None	None
NaCl	7647-14-5	<20%	None	None
Sodium phosphate dibasic	7558-79-4	<3%	None	None
Polyoxyethylene(20)sorbitan monolaurate	9005-64-5	<20 %	None	None

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

◆ **Health Effects:**

Adverse health effects are not expected from the recommended use of this product. Some people may be allergic to the material. Symptoms of exposure may include: fatigue, coughing, weight loss and shortness of breath.

◆ **Primary Routes of Entry:** Skin or eye contact from splashes

◆ **Medical Conditions Aggravated by Exposure:** not known

◆ **Emergency First Aid Procedures:**

- **Skin contact-** Flush contaminated areas with large volume of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if the skin remains irritated.
- **Eye contact-** Flush contaminated eye(s) with large volume of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.
- **Ingestion-** No adverse effects are reasonably anticipated. If any symptoms occur, keep victim warm and calm and get medical attention immediately.
- **Inhalation-** Move victim to fresh air. If breathing becomes difficult, seek medical assistance immediately.

◆ **First-Aid measures:**

- *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.
- *Ingestion* Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- *Skin contact* In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- *Notes to physician* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** Not available.
- ◆ **Fire hazards in presence of various substances:** Not considered to be flammable.
- ◆ **Fire fighting media and instructions:** Use dry chemical, CO₂, water spray or foam.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Burning produces irritant fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid breathing vapors or spray mists. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.
- ◆ **Personal protection**
 - **Eyes:** Safety glasses.
 - **Body:** Lab coat and gloves.
 - **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Transparent
 - **Odor:** Not available.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** 7.4
- ◆ **Boiling point:** Not available.
- ◆ **Decomposition temperature:** Not available.
- ◆ **Melting point:** Not available.
- ◆ **Flash point:** Not available.
- ◆ **Dispersion properties:** Not available.
- ◆ **Solubility:** Not available.

SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** The product is stable at a pH between 4 and 11
- ◆ **Conditions to avoid:** pH < 4 and pH > 11, using temperatures < + 2°C and > + 96°C
- ◆ **Materials to avoid:** Strong acids, strong bases and pure organic solvents.

- ◆ Hazardous polymerization: Will not occur.
- ◆ Hazardous decomposition products: Not available.
- ◆ Hazardous decomposition products: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product Information

- Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
- Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
- Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Product/ingredient	ORAL LD50	Dermal LD50	Inhalation LC50
Water	N/A	N/A	N/A
Sodium Chloride	LD50 = 3 g/kg (Rat)	LD50 > 10000 mg/kg (Rabbit)	LC50 > 42 mg/L (Rat) 1 h
Sodium phosphate dibasic	LD50 = 17 g/kg (Rat)	N/A	N/A
Polyoxyethylene(20)sorbitan monolaurate	LD50 = 37000 mg/kg (Rat)	Not listed	LC50 > 5.1 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation : No information available

Sensitization No information available

Carcinogenicity Not Listed

Mutagenic Effects No information available

Reproductive Effects No information available

Developmental Effects No information available

Teratogenicity No information available

STOT - single exposure No information available

STOT - repeated exposure No information available

Aspiration hazard Symptoms / effects, both acute and delayed No information available

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	Water Flea	log Pow
Sodium chloride	N/A	N/A	Pimephals prome: LC50: 7650 mg/L/96h	N/A	EC50: 1000 mg/L/48h	N/A

Persistence and Degradability Miscible with water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ Waste stream: Not available.
- ◆ Waste disposal method: Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ European waste catalogue (EWC): Not available.
- ◆ Hazardous waste: Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

ATA: Not regulated.

IMDG: Not regulated.

SECTION 15 – REGULATORY INFORMATION

◆ **US Federal Regulations**

Component	CAS	TCSA	TSCA Inventory notification Active-Inactive	TSCA - EPA Regulatory Flags
Water	7732-18-5	X	Active	-
Sodium Chloride	7647-14-5	X	Active	-
Sodium phosphate dibasic	7558-79-4	X	Active	-
Polyoxyethylene(20)sorbitan monolaurate	9005-64-5	X	Active	XU

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D):

Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants):

Not applicable

CLEAN WATER ACT (RQ, 40 CFR):

Sodium phosphate dibasic; CWA reportable Qty: 5000 lb

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

U.S. State Right-to-Know Regulations

Components	Massachussets	New Jersey	Pennsylvania	Illinois	Rhode Island
Water			X		
Sodium phosphate dibasic	X	X	X		

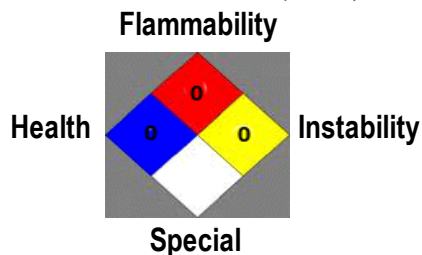
◆ This product is not classified according to the EU regulations.

SECTION 16– OTHER INFORMATION

◆ **Hazardous Material Information System (U.S.A.):**

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

◆ **Revisions:**

Issue Date: 30-Oct-25
Last Revision Date: 24-Nov-2025
Revision note: New format. updated Section 2,8,15,16.

◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1 - PRODUCT AND COMPANY INFORMATION

- **Product name:** TMB Substrate
- **Catalog number:** Component K of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

◆ GHS Classification

Eye Irritation : 2
Skin Irritation : 1
Skin sensitization 1

◆ GHS Label element

Signal Word:

Warning

Hazard Statements:

H315: Causes skin irritation, H317 may cause an allergic skin reaction, H319 Causes serious eye irritation



Pictograms:

Precautionary statements :

P305+P351+P338: IF IN EYES: Rinse cautiously in water; P302+P352: IF ON SKIN: wash with water; P301+P330+P331: IF SWALLOWED: Rinse mouth, do not induce Vomiting; P310: Immediately call a poison center.

- ◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **Yes.**
- ◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**
- ◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: 3,3',5,5'-Tetramethylbenzidine substrate in solution in acetate buffer.

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>EINECS</u>	<u>Classification</u>
3,3',5,5'-Tetramethylbenzidine	54827-17-7	<0.1%	None	Acute Tox 4; Carc 2; Aqu chronic 4

Only hazardous Ingredients are listed according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

◆ **Health Effects:**

Adverse health effects are not expected from the recommended use of this product. Some people may be allergic to the material. Symptoms of exposure may include: fatigue, coughing, weight loss and shortness of breath.

◆ **Primary Routes of Entry:** Skin or eye contact from splashes

◆ **Medical Conditions Aggravated by Exposure:** not known

◆ **Emergency First Aid Procedures:**

- **Skin contact-** Flush contaminated areas with large volume of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if the skin remains irritated.
- **Eye contact-** Flush contaminated eye(s) with large volume of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.
- **Ingestion-** No adverse effects are reasonably anticipated. If any symptoms occur, keep victim warm and calm and get medical attention immediately.
- **Inhalation-** Move victim to fresh air. If breathing becomes difficult, seek medical assistance immediately.

◆ **First-Aid measures:**

Inhalation
Ingestion

○ *Skin contact*

○ *Eye contact*

○ *Notes to physician*

○ *Protection of first-aiders*

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Not available.

Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** Not available.
- ◆ **Fire hazards in presence of various substances:** Not considered to be flammable.
- ◆ **Fire fighting media and instructions:** Use dry chemical, CO₂, water spray or foam.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Burning produces irritant fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid breathing vapors or spray mists. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.
- ◆ **Personal protection**
 - **Eyes:** Safety glasses.
 - **Body:** Lab coat and gloves.
 - **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Not Available
 - **Odor:** Not available.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** 7.4
- ◆ **Boiling point:** Not available.
- ◆ **Decomposition temperature:** Not available.
- ◆ **Melting point:** Not available.
- ◆ **Flash point:** Not available.

Dispersion properties: Not available.

Solubility: Not available.

SECTION 10 – STABILITY AND REACTIVITY

- ◆ **Stability and reactivity:** The product is stable at a pH between 4 and 11
- ◆ **Conditions to avoid:** pH < 4 and pH > 11, using temperatures < + 2°C and > + 96°C
- ◆ **Materials to avoid:** Strong acids, strong bases and pure organic solvents.
- ◆ **Hazardous polymerization:** Will not occur.
- ◆ **Hazardous decomposition products:** Not available.
- ◆ **Hazardous decomposition products:** Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Components 3,3',5,5'-tetramethylbenzidine

Acute toxicity LD50 Oral - Rat - 404 mg/kg Remarks: The value is given in analogy to the following substances: o-Tolidine Acute toxicity estimate Oral - 404 mg/kg (Calculation method) Inhalation: No data available Dermal: No data available

Skin corrosion/irritation Remarks: No data available

Serious eye damage/eye irritation Remarks: No data available

Respiratory or skin sensitization No data available

Germ cell mutagenicity

Test Type:

Mouse Test system: lymphocyte

Remarks: Mutation in mammalian somatic cells. S

pecies: Mouse

Remarks: Micronucleus test

Carcinogenicity Suspected of causing cancer.

Reproductive toxicity No data available

Specific target organ toxicity – single exposure No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity Mixture 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 This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Endocrine disrupting properties ProductAssessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects No data available

Components 3,3',5,5'-tetramethylbenzidine No data available

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ **Waste stream:** Not available.
- ◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ **European waste catalogue (EWC):** Not available.
- ◆ **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – OTHER INFORMATION

◆ **US Federal Regulations**

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Not applicable

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use REACH –

Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) 15.2
Chemical safety assessment : 3,3',5,5'-tetramethylbenzidine For this product a chemical safety assessment was not carried out.

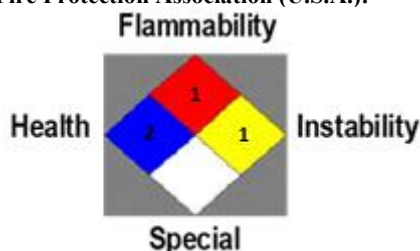
◆ This product is not classified according to the EU regulations.

SECTION 16 – OTHER INFORMATION

◆ **Hazardous Material Information System (U.S.A.):**

Health	2
Fire hazard	1
Reactivity	1
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic



Revisions:

Issue Date: 30-Oct-25

Last Revision Date: 24-Nov-2025

Revision note: New format. updated Section 2,8,15,16.

◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1 - PRODUCT AND COMPANY INFORMATION

- **Product name:** Stop Solution
- **Catalog number:** Component L of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

◆ GHS Classification

◆ GHS Label element

Signal Word:

Warning

Hazard Statements:

H332 - Harmful if inhaled

Pictograms:



Precautionary statements :

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P271 - Use only outdoors or in a well-ventilated area. P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing P312 - Call a POISON CENTER or doctor/physician if you feel unwell

- ◆ This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **Yes.**
- ◆ This product contains hazardous carcinogens (Yes; No; N/A): **No**
- ◆ This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: Diluted acidic stop solution based on sulfuric acid

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>EINECS</u>
Sulfuric acid	7664-93-9	0.1-2%	231-639-5

Only hazardous Ingredients are listed according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

◆ **Health Effects:**

Adverse health effects are not expected from the recommended use of this product. Some people may be allergic to the material. Symptoms of exposure may include: fatigue, coughing, weight loss and shortness of breath.

◆ **Primary Routes of Entry:** Skin or eye contact from splashes

◆ **Medical Conditions Aggravated by Exposure:** not known

◆ **Emergency First Aid Procedures:**

- **Skin contact-** Flush contaminated areas with large volume of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if the skin remains irritated.
- **Eye contact-** Flush contaminated eye(s) with large volume of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.
- **Ingestion-** No adverse effects are reasonably anticipated. If any symptoms occur, keep victim warm and calm and get medical attention immediately.
- **Inhalation-** Move victim to fresh air. If breathing becomes difficult, seek medical assistance immediately.

◆ **First-Aid measures:**

- *Inhalation* If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately.
- *Ingestion* Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

○ **Skin contact**

In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothes before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

○ **Eye contact**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

○ **Notes to physician**

Not available.

○ **Protection of first-aiders**

Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- ◆ **Flammability of the product:** May be combustible at high temperature.
- ◆ **Flash Point:** Not available.
- ◆ **Fire hazards in presence of various substances:** Not considered to be flammable.
- ◆ **Fire fighting media and instructions:** Use dry chemical, CO₂, water spray or foam.
- ◆ **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- ◆ **Hazardous thermal decomposition products:** Burning produces irritant fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- ◆ **Personal precautions:** Safety glasses, lab coat and gloves.
- ◆ **Environmental precautions and clean-up methods:** Prevent product from entering drains. Sweep up and shovel into suitable containers for disposal.

SECTION 7 – HANDLING AND STORAGE

- ◆ **Handling:** Avoid breathing vapors or spray mists. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
- ◆ **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- ◆ **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- ◆ **Packaging materials**
- ◆ **Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

- ◆ **Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.

- ◆ **Control Parameters:**

Components	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Sulfuric acid	1 mg/m ³		0.2 mg/m ³	

- ◆ **Personal protection**

- **Eyes:** Safety glasses.
- **Body:** Lab coat and gloves.
- **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- ◆ **Appearance**
 - **Physical State:** Liquid.
 - **Color:** Not Available
 - **Odor:** Not available.
 - **Taste:** Not available.
- ◆ **Molecular weight:** Not available.
- ◆ **pH:** Not available.
- ◆ **Boiling point:** Not available.

◆ Decomposition temperature:	Not available.
◆ Melting point:	Not available.
◆ Flash point:	Not available.
◆ Dispersion properties:	Not available.
◆ Solubility:	Not available.

SECTION 10 – STABILITY AND REACTIVITY

◆ Stability and reactivity:	The product is stable at a pH between 4 and 11
◆ Conditions to avoid:	pH < 4 and pH > 11, using temperatures < + 2°C and > + 96°C
◆ Materials to avoid:	Strong acids, strong bases and pure organic solvents.
◆ Hazardous polymerization:	Will not occur.
◆ Hazardous decomposition products:	Not available.
◆ Hazardous decomposition products:	Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Components	ORAL LD50	Dermal LD50	Inhalation LC50
Sulfuric acid	= 2140 mg/kg (Rat)	-	=0.375mg/L(Rat)

Acute toxicity: Harmful if inhaled

Skin corrosion/irritation Remarks: No data available

Serious eye damage/eye irritation Remarks: No data available

Respiratory or skin sensitization No data available

Germ cell mutagenicity

Test Type:

Mouse Test system: lymphocyte

Remarks: Mutation in mammalian somatic cells. S

pecies: Mouse

Remarks: Micronucleus test

Carcinogenicity No data available

Reproductive toxicity No data available

Specific target organ toxicity – single exposure No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

SECTION 12 – ECOLOGICAL INFORMATION

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	Water Flea	log Pow
Sulfuric Acid	N/A	N/A	N/A	N/A	N/A	N/A

Toxicity Mixture 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 This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Endocrine disrupting properties ProductAssessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects No data available

Components 3,3',5,5'-tetramethylbenzidine No data available

SECTION 13 – DISPOSAL CONSIDERATIONS

- ◆ **Waste stream:** Not available.
- ◆ **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- ◆ **European waste catalogue (EWC):** Not available.
- ◆ **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

D.O.T.: Not regulated.

IATA.: Not regulated.

IMDG: Not regulated.

SECTION 15 – OTHER INFORMATION

◆ **US Federal Regulations**

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

CLEAN WATER ACT (RQ, 40 CFR): Not applicable

SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313:

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers.

Chemical Name Sulfuric acid; **CAS No.** 7664-93-9 **Weight-%** 0.1-2% **SARA 313 - Threshold Values** 1.0

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

US State Regulations : State Lists:

Components	Massachussets	New Jersey	Pennsylvania	Illinois	Rhode Island
Water			X		
Sulfuric Acid	X	X	X	X	X

California Proposition 65 chemicals.

Strong inorganic acid mists containing sulfuric acid are on the California Proposition 65 Lists. **WARNING!** Strong inorganic mists containing Sulfuric Acid are known to the State of California to cause cancer.

Chemical Name Sulfuric acid; **CAS No.** 7664-93-9 **Weight-%** 0.1-2% **SARA 313 - Threshold Values** 1.0

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

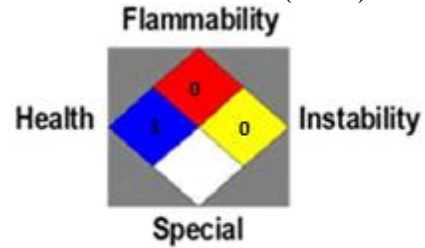
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16– OTHER INFORMATION

◆ **Hazardous Material Information System (U.S.A.):**

Health	1
Fire hazard	0
Reactivity	0
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

◆ **Revisions:**

Issue Date: 30-Oct-25

Last Revision Date: 24-Nov-2025

Revision note: New format. updated Section 2,8,15,16.

◆ **Other Comments:**

To the best of our knowledge, the information contain herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Restriction of use: for research use only.

SECTION 1-PRODUCT AND COMPANY INFORMATION

- **Product name:** Plate Sealer
- **Catalog number:** Component M of DSRNA-48T Kit
- **Chemical name or synonyms:** none

SECTION 2 – HAZARDS IDENTIFICATION

- **GHS Classification**
No
- **GHS Label element**
- Signal Word: None
- Hazard Statements: None
- Pictograms: None
- This product contains hazardous ingredients (Yes; No; Not Applicable or no information): **No**.
- This product contains hazardous carcinogens (Yes; No; N/A): **No**
- This product contains hazardous ingredients to the environment. (Yes; No; N/A): **No**

SECTION 3 – COMPOSITION, INFORMATION ON INGREDIENTS

Description: Microplate sealer

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>Classification</u>
Polystyrene (microtiter strip)	9002-88-4	100%	No

Ingredients are not hazardous or their concentrations do not exceed the limit specified according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directive 1999/45/EC-2001/59/EC (EU).

SECTION 4 – FIRST AID MEASURES

- **Effects and symptoms:**
 - *Inhalation* May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
 - *Ingestion* May be harmful in case of ingestion.
 - *Skin contact* May cause skin irritation, redness, itching.
 - *Eye contact* Slightly hazardous in case of eye contact.
 - *Aggravating conditions* Chronic exposure may develop allergic reactions in sensitive individuals.
- **First-Aid measures:**
 - *Inhalation* Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
 - *Ingestion* Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
 - *Skin contact* In case of contact, immediately wash skin with soap and copious amounts of water.
 - *Eye contact* In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
 - *Notes to physician* Not available.
 - *Protection of first-aiders* Not available.

SECTION 5 – FIRE FIGHTING MEASURES

- **Extinguishing media:** Water spray, carbon dioxide, dry chemical powder or appropriate foam.
- **Flammability of the product:** Not available.
- **Flash Point:** Not available.
- **Fire hazards in presence of various substances:** Not considered to be flammable.
- **Fire fighting media and instructions:** Use an extinguish agent suitable for surrounding fires.
- **Protective clothing (fire):** Be sure to use an approved/certified respirator or equivalent.
- **Hazardous thermal decomposition products:** Not available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Safety glasses, lab coat and gloves.
- **Environmental precautions and clean-up methods:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.
- **Small spill and leak:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
- **Additional information:** No dangerous substances are released.

SECTION 7 – HANDLING AND STORAGE

- **Handling:** Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure.
- **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Store at +4°C.
- **Intended use:** Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific application.
- **Packaging materials Suitable:** Use original container.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Recommended monitoring procedures

Contains no substances with occupational exposure limit values.

Engineering measures :

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- **Eyes:** Safety glasses.
- **Body:** Lab coat and gloves.
- **Respiratory:** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**
 - **Physical State:** Solid.
 - **Color:** Not available.

- **Odor:** Not available.
- **Taste:** Not available.

- **Molecular weight:** Not available.
- **pH:** Not available
- **Boiling point:** Not available
- **Decomposition temperature:** Not available
- **Melting point:** Not available.
- **Flash point:** Not available.
- **Dispersion properties:** Not applicable.
- **Solubility:** Not available
- **Percent volatile by volume:** N/A
- **Evaporation Rate:** N/A

SECTION 10 – STABILITY AND REACTIVITY

- **Stability and reactivity:** The product is stable under recommended storage conditions.
- **Conditions to avoid:** Exposure to light, air or moisture over prolonged periods.
- **Materials to avoid:** Will not occur
- **Hazardous polymerization:** Will not occur.
- **Hazardous decomposition products:** Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

- **Route of exposure:**
 - **Skin absorption:** Data are conclusive but insufficient for classification.
 - **Skin contact:** Data are conclusive but insufficient for classification..
 - **Eye contact:** Data are conclusive but insufficient for classification.
 - **Inhalation:** Data are conclusive but insufficient for classification.
 - **Ingestion:** Data are conclusive but insufficient for classification.
- **Toxicity on animals:**
 - **LD50:** Not available.
 - **LC50:** Not available.
- **Chronic effects on humans:** Carcinogenic effects: classified none. by NIOSH. By OSHA.
- **Other toxic effects on humans:** None.

SECTION 12 – ECOLOGICAL INFORMATION

- No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

- **Waste stream:** Not available.
- **Waste disposal method:** Contact a licensed professional waste disposal service to dispose of this material. Dispose in accordance with governmental environmental regulations. Observe all federal, state, and local environmental regulations.
- **European waste catalogue (EWC):** Not available.
- **Hazardous waste:** Will not occur.

SECTION 14 – TRANSPORT INFORMATION

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SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

RCRA (Lists of Hazardous Wastes, 40 CFR 261 Subpart D): Not applicable

CLEAN AIR ACT (SEC. 112. Hazardous Air Pollutants): Not applicable

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SARA Title III:

Section 302 -304, 40 CFR 355: Components present in this product at a level which could require reporting are: none.

Section 311 - 312: Components present in this product at a level which could require reporting are: none.

Section 313: Not applicable

TSCA Section 8(b) Inventory Status: All ingredients are listed on TSCA Inventory of Chemical Substances or exempt from TSCA Inventory requirements.

AICS Inventory Status: All ingredients are listed on the Australia Inventory of Chemical Substances.

State Lists

This product does not contain any Proposition 65 chemicals.

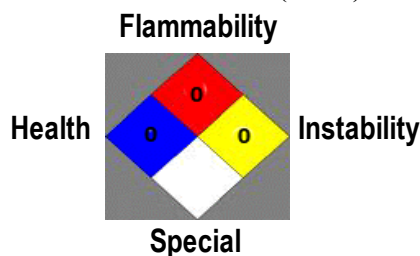
- This product is not classified according to the EU regulations.

SECTION 16 – OTHER INFORMATION

◆ **Hazardous Material Information System (U.S.A.):**

Health	0
Fire hazard	0
Reactivity	0
Personal protection	

◆ **National Fire Protection Association (U.S.A.):**



0 = not significant
1 = slight
2 = moderate

3 = high
4 = extreme
* = chronic

◆ **Revisions:**

Issue Date: 30-Oct-2025

Last Revision Date: 24-Nov-2025

Revision note: Update section 2,11,12,15.

◆ **Other Comments:**

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