

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Trade name: Synthetic DNA and RNA oligonucleotides

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

Uses advised against: No specific uses advised against are identified.

1.3 Details of the supplier of the Safety Data Sheet

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SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

This product is classified as non-hazardous according to OSHA Hazardous Communication Standard 29 CFR 1910.1200.

2.2 Label elements

This product does not require specific labelling according to OSHA Hazardous Communication Standard 29 CFR 1910.1200.

2.3 Other hazards

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain hazardous chemicals according to the OSHA Hazardous Communication Standard 29 CFR 1910.1200.

Ingredients:

Name	CAS No.	GHS classification	% (w/v)
Water	7732-18-5	Not classified.	95
Cas13	NA	Not classified.	NA
Magnesium chloride solution	7786-30-3	Not classified.	NA
Modified Synthetic RNA, modified oligo	NA	Not classified.	NA
Ribonucleotide Solution Mix	NA	Not classified.	NA

Ribonucleic Acid, Modified	NA	Not classified.	NA
RNA Pol Reaction Buffer	NA	Not classified.	NA
Ribonucleic Acid, Unmodified	NA	Not classified.	NA
RNase Inhibitor, Murine	NA	Not classified.	NA
RNase Alert	NA	Not classified.	NA
T7 RNA Polymerase	NA	Not classified.	NA
Deoxyribonucleic Acid, Unmodified	NA	Not classified.	NA
Oligoribonucleic Acid, Unmodified	NA	Not classified.	NA

The exact percentages (concentration) of composition have been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Following inhalation: Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

Following skin contact: Rinse with water.

Following eye contact: Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.

Following ingestion: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.

Protection of first aider: First aid personnel should wear appropriate protective equipment during any rescue.

4.2 Most important symptoms and effects

Symptoms: The known symptoms and effects are described in section 2.2 of this SDS.

Risks: Untreated symptoms may result in additional health risks.

4.3 Indication of any immediate medical and special treatment

The physician may contact the national poison centre for advice.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Dry chemical, CO₂, water spray or alcohol-resistant foam.

Unsuitable extinguishing media: No data available.

5.2 Specific hazards arising from mixture

No data available.

5.3 Advice for fire fighters

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

5.4 Other information

No other information available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material.

6.2 Environmental precautions

Avoid discharge into drains or watercourses or onto the ground.

6.3 Methods and material for containment and cleaning up:

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Collect spillage with a shovel and broom, or similar and reuse, if possible.

Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from foodstuff.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.

Incompatible materials: See section 10.

7.3 Specific end uses

See section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Control parameters according to the local regulations should be taken into account.

8.2 Exposure controls

Engineering controls:

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Personal Protective equipment:

Hand: No special protective equipment required.

Body protection: No special protective equipment required.

Eye: No special protective equipment required.

Respiratory: No special protective equipment required.

Other measures: No statement available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Flake, film or powder like substance
Color:	Translucent or opaque
Odor:	Odorless
Odor threshold:	No data available
pH:	No data available
Melting point/range:	No data available
Boiling point/range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative Density:	No data available
Solubility(ies):	No data available
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

There are no known conditions that are likely to result in a hazardous situation.

10.5 Incompatible materials

No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6 Hazardous decomposition products

In case of fire: see section 5.2

Does not decompose when used and stored as recommended. Thermal decomposition or combustion

products may include the following substances: Harmful gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

General information:

This product does not contain known human carcinogens.

11.1 Information on toxicological effects

Acute Toxicity:

Based on available data the classification criteria are not met.

Skin corrosion/irritation:

Based on available data the classification criteria are not met.

Serious eye damage/irritation:

Based on available data the classification criteria are not met.

Respiratory or skin sensitization:

Based on available data the classification criteria are not met.

Germ cell mutagenicity:

Based on available data the classification criteria are not met.

Carcinogenicity:

This product does not contain known human carcinogens.

Reproductive toxicity:

Based on available data the classification criteria are not met.

STOT – single exposure:

Not classified as a specific target organ toxicant after a single exposure.

STOT – repeated exposure:

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

No statements available for any of the ingredients.

Likely route(s) of exposure:

Skin exposure and eye exposure are the most likely to occur. Accidental ingestion is also possible.

SECTION 12: ECOLOGICAL INFORMATION

General information:

Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1 Toxicity

Based on available data the classification criteria are not met.

12.2 Persistence and degradability

Physical- and photochemical elimination:

No statements available for any of the ingredients.

Biodegradation:

No statements available for any of the ingredients.

12.3 Bioaccumulative potential

No statements available for any of the ingredients.

12.4 Mobility in soil

Known/Predicted environmental distribution:

No statements available for any of the ingredients

Surface tension:

No statements available for any of the ingredients.

Adsorption/Desorption:

No statements available for any of the ingredients.

12.5 Results of PBT and vPvB assessment

This product does not contain components which are considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No statements available for any of the ingredients.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Waste material:

Dispose according to Federal, State, Provincial and Local regulations.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT Not regulated as a dangerous material.

14.2. In Accordance with IMDG Not regulated as a hazardous good.

14.3. In Accordance with IATA Not regulated as a hazardous good.

SECTION 15: REGULATORY INFORMATION

International Inventories

TSCA: Complies

DSL: No components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List.

Health and Safety at Work etc. Act 1974 (as amended).

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI

2009 No. 1348) (as amended) ["CDG 2009"].

EH40/2005 Workplace exposure limits.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on

classification, labelling and packaging of substances and mixtures (as amended).

US Federal Regulations

SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard: No

Chronic Health Hazard: No

Fire hazard: No

Sudden release of pressure hazard: No

Reactive Hazard: No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Canada

WHMIS Hazard Class

Not determined.

SECTION 16: OTHER INFORMATION

Further information

The information presented in this Safety Data Sheet (SDS) is accurate to the best of our knowledge at the date of publication. The information given within the SDS is meant solely as a guide for safe handling, use, transportation, processing, storage, release and disposal. In no means can the information within the SDS be considered as a warranty or specification for quality.