

Chemical Safety Data Sheet MSDS / SDS

2'-Deoxyguanosine-5'-O-(1-thiotriphosphate), RP-isomer sodium saltRevision Date:2026-09-13 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier**

Product name : 2'-Deoxyguanosine-5'-O-(1-thiotriphosphate), RP-isomer sodium salt
CBnumber : CB5705700
CAS : 80902-29-0
Synonyms : Rp-2'-Deoxyguanosine-5'-O-(1-thiotriphosphate) (sodium salt),dGTPaS (Rp isomer) 100mM Sodium Solution

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

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.
Uses advised against : none

Company Identification

Company : Chemicalbook
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone : 010-86108875

SECTION 2: Hazards identification**GHS Label elements, including precautionary statements**

Symbol(GHS) : No data available
Signal word : No data available

Precautionary statements

No data available

Hazard statements

No data available

SECTION 3: Composition/information on ingredients**Substance**

Product name : 2'-Deoxyguanosine-5'-O-(1-thiotriphosphate), RP-isomer sodium salt
Synonyms : Rp-2'-Deoxyguanosine-5'-O-(1-thiotriphosphate) (sodium salt),dGTPaS (Rp isomer) 100mM Sodium Solution

CAS	: 80902-29-0
MF	: C10H12N5Na4O12P3S
MW	: 611.17

SECTION 4: First aid measures

Description of first aid measures

General information

No special measures required.

After inhalation

Supply fresh air; consult doctor in case of complaints.

After skin contact

Generally the product does not irritate the skin.

After eye contact

Rinse opened eye for several minutes under running water.

After swallowing

If symptoms persist consult doctor.

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents

Use fire fighting measures that suit the environment.

A solid water stream may be inefficient.

Special hazards arising from the substance or mixture

No further relevant information available.

Advice for firefighters

Protective equipment

No special measures required.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Not required.

Environmental precautions

Dilute with plenty of water.

Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

PAC-1

None of the ingredients is listed.

PAC-2

None of the ingredients is listed.

PAC-3

None of the ingredients is listed.

SECTION 7: Handling and storage

Handling

Precautions for safe handling

No special measures required.

Information about protection against explosions and fires

No special measures required.

Conditions for safe storage, including any incompatibilities

Storage

Store in accordance with information listed on the product insert.

Requirements to be met by storerooms and receptacles

No special requirements.

Information about storage in one common storage facility

Not required.

Further information about storage conditions

None.

Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems

No further data; see section 7.

Control parameters**Components with limit values that require monitoring at the workplace**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information

The lists that were valid during the creation were used as basis.

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

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment

Not required.

Protection of hands

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

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

Eye protection

Goggles recommended during refilling.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance

Physical State

Liquid

Color

Colorless

Odor

Odorless

Structural Formula

C₁₀H₁₂N₅O₁₂P₃S 4Na

Molecular Weight

611.2 g/mol

Odor Threshold

Not determined.

Formulation

A solution in water

pH

Not determined.

Change in condition

Melting point/Melting range

0 °C (32 °F)

Boiling point/Boiling range

100 °C (212 °F)

Flash point

Not applicable.

Flammability (solid,gas)

Not applicable.

Decomposition temperature

Not determined.

Ignition temperature

Product is not selfigniting.

Danger of explosion

Product does not present an explosion hazard.

Explosion limits

Lower: Not determined.

Upper: Not determined.

Vapor Pressure at 20 °C (68 °F)

23 hPa (17.3 mm Hg)

Density at 20 °C (68 °F)

1 g/cm³ (8.345 lbs/gal)

Relative Density

2.56±0.1 g/cm³(Temp: 20 °C; Press: 760 Torr)(predicted)

Vapor Density

Not determined.

Evaporation Rate

Not determined.

Solubility in / Miscibility with

Water: Soluble

Water

Fully miscible.

Partition coefficient (n-octanol/water)

Not determined.

Viscosity

Dynamic

at 20 °C (68 °F): 0.952 mPas

Kinematic

Not determined.

SOLUBILITY

Water: Soluble

VOC content

0.00 % 0.0 g/l / 0.00 lb/gal

Solids content

0.6 %

Other information

No information available

SECTION 10: Stability and reactivity

Reactivity

No further relevant information available.

Chemical stability**Thermal decomposition / conditions to be avoided**

No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

Conditions to avoid

No further relevant information available.

Incompatible materials

No further relevant information available.

Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information

Information on toxicological effects**Acute toxicity****Primary irritant effect**

on the skin

No irritant effect.

on the eye

No irritating effect.

Sensitization

No sensitizing effects known.

Additional toxicological information

The product is not subject to classification according to internally approved calculation methods for preparations

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

SECTION 12: Ecological information

Toxicity**Aquatic toxicity**

No further relevant information available.

Persistence and degradability

No further relevant information available.

Behavior in environmental systems**Bioaccumulative potential**

No further relevant information available.

Mobility in soil

No further relevant information available.

Additional ecological information

General notes

Not hazardous for water.

vPvB

Not applicable.

Results of PBT and vPvB assessment**PBT:**

Not applicable.

vPvB:

Not applicable.

Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

Waste treatment methods**Recommendation**

Smaller quantities can be disposed of with household waste.

Uncleaned packagings**Recommendation**

Disposal must be made according to official regulations.

Recommended cleansing agent

Water, if necessary with cleansing agents.

SECTION 14: Transport information

UN-Number

DOT, IMDG, IATA not regulated

UN proper shipping name

DOT, IMDG, IATA not regulated

Transport hazard class(es)

DOT, ADN, IMDG, IATA

Class not regulated

Packing group

DOT, IMDG, IATA not regulated

Environmental hazards

Not applicable.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

MARPOL73/78 and the IBC Code Not applicable.

UN "Model Regulation"

not regulated

SECTION 15: Regulatory information

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

No further relevant information available.

Sara

Section 355 (extremely hazardous substances):	None of the ingredients is listed.
Section 313 (Specific toxic chemical listings):	None of the ingredients is listed.
TSCA (Toxic Substances Control Act):	Water ACTIVE
Hazardous Air Pollutants:	None of the ingredients is listed.

Proposition 65

Chemicals known to cause cancer:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients is listed.
Chemicals known to cause developmental toxicity:	None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency):	None of the ingredients is listed.
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TLV (Threshold Limit Value)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.