

Safety Data Sheet SDS Print Date: 02/28/2020 SDS Revision Date: 02/28/2023

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifiers

Product Name: Catalog Number: NB-48-0802 CAS Number: [36791-04-5]

EC Number: IUPAC Name:

 $1\text{-}\beta\text{-}D\text{-}Ribofuranosyl\text{-}1H\text{-}1,2,4\text{-}triazole\text{-}3\text{-}carboxamide}$

1.2 Relevant identified uses of the substance or mixture and usesadvised against Identified Uses:

For laboratory research purposes only. Not fordrug or household use.

1.3 Details of the supplier of the safety data sheet

. Neo Biotech Company:

74 rue des suisse 92000 Nanterre France

+33977400909 Tel.: +33977401011 Fax: E-Mail: info@neo-biotech.com Internet: www.neo-biotech.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)Reproductive toxicity (Category 1B), H360

2.2 Label elements



Pictogram

Signal word Danger

Hazard statement(s)

H360 May damage fertility or the unborn child. Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read andunderstood.

P281 Use personal protective equipment as required.

P308 + P313 IF exposed or concerned: Get medical advice / attention.P405 Store locked up.

P501 Dispose of contents / container to an approved waste disposal plant.

2.3 Other hazards none

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Product Name: Ribavirin

Synonyms: 1-β-D-Ribofuranosyl-1H-1,2,4-triazole-3-carboxamide

Formula: C₈H₁₂N₄O₅ Molecular Weight: 244.20 g/mol CAS Number: [36791-04-5]

EC Number:

(for batch specific information, please see CoA)

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a doctor and show this safety data sheet.

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

Immediately wash skin with copious amounts of soap and water for at least15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor

In case of eve contact

Flush with copious amounts of water for at least 15 minutes. Consult adoctor.

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a

4.2 Most important symptoms and effects, both acute and delayed To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

4.3 Indication of immediate medical attention and special treatmentneeded

Show this safety data sheet to the doctor in attendance. Immediate medicalattention is required.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

In combustion, may emit toxic fumes

5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes andself-contained breathing apparatus.

6. ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoidbreathing vapors, mist, dust or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal iscomplete. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4 Reference to other sections

For required PPE see section 8. For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation ofdust and

aerosols. Use in a well-ventilated area. Keep away from sources ofignition. Avoid prolonged or repeated exposure.

7.2 Conditions for safe storage, including any incompatibilities. Store in cool, well-ventilated area. Keep away from direct sunlight. Keepcontainer tightly sealed until ready for use.

Recommended storage temperature: Store at RT.

7.3 Specific end uses

Use in a laboratory fume hood where possible. Refer to employer's COSHHrisk assessment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values

8.2 Exposure controls Appropriate engineering controls

Use in a fume hood where applicable. Ensure all engineering measuresdescribed under section 7 of SDS are in place.

Ensure laboratory is equipped with a safety shower and eye wash station.

Personal protective equipmentEye / face protection

Use appropriate safety glasses.

Skin protection

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Washand dry hands thoroughly after handling.

Body protection

Appearance

Wear appropriate protective clothing.

Respiratory protection

If risk assessment indicates necessary, use a suitable respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

White solid

No data available Vapor pressure No data available Odor Vapor density No data available Odor threshold No data available Relative density No data available No data available Solubility(ies) Soluble in water Melting / freezing point Partition coefficient No data available No data available Boiling point / range No data available Auto-ignition temperature No data available No data available Flash point Decomposition temperature No data available Evaporation rate No data available Viscosity No data available Flammability (solid, gas) No data available No data available Explosive properties Upper / lower flammability No data available

Oxidising properties

or explosive limits No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids / alkalis, strong oxidizing / reducing agents.

10.6 Hazardous decomposition products

In combustion may emit toxic fumes. No known decomposition information.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

2,700 mg/kg

LD₅₀ Oral (rat) Skin corrosion / irritation

Classification criteria are not met based on available data

Serious eye damage / irritation

Classification criteria are not met based on available data

Respiratory or skin sensitization Classification criteria are not met based on available data

Germ cell mutagenicity

Classification criteria are not met based on available data Carcinogenicity

Classification criteria are not met based on available data

Reproductive toxicity

Presumed human reproductive toxicant. Specific target organ toxicity

single exposure

Classification criteria are not met based on available data

Specific target organ toxicity

- repeated exposure

Classification criteria are not met based on available data

Aspiration hazard

Classification criteria are not met based on available data

Symptoms / Routes of exposure

Inhalation: There may be irritation of the throat with afeeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

There may be mild irritation at the site of contact. Skin:

Eyes: There may be irritation and redness. No known symptoms.

Delayed / Immediate Effects: Additional Information

RTECS No: XZ4250000

Exposure may cause irritation of eyes, mucous membranes, upper respiratory tract and skin, headache, fatigue, anemia, respiratory disorder, rash, stomachirregularities - based on human evidence. To the best of ourknowledge, the chemical, physical and toxicological properties have not been fully investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumlative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

May be harmful to the aquatic environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with National legislation.

Contaminated packaging

Dispose of in a regulated landfill site or other method for hazardous or toxicwastes in accordance with National legislation.

14. TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID and IATA.

14.1 UN-Number

Does not meet the criteria for classification as hazardous for transport.

14.2 UN proper shipping name

Does not meet the criteria for classification as hazardous for transport.

14.3 Transport hazard class(es)

Does not meet the criteria for classification as hazardous for transport.

14.4 Packaging group

Does not meet the criteria for classification as hazardous for transport.

14.5 Environmental hazards

This product is not classified as environmentally hazardous according to the UN Model Regulations, nor a marine pollutant according to the IMDG Code.

14.6 Special precautions for users

No data available

14.7. Transport in bulk according to Annex II of MARPOL73/78 and IBCCode

No information required.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No.453/2010.

15.1 Safety, health and environmental regulations/legislation specificfor the substance or mixture

No data available

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been made for this product.

16. OTHER INFORMATION

Further Information

This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazardexists.

End of safety data sheet