



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

1.1 Product identifier:

Substance name	(S)-5-(Hydroxymethyl)dihydrofuran-2(3H)-one
CAS No.	32780-06-6
Product code	2HHBO
REACH Registration No.	Not identified
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Relevant identified uses	Laboratory chemicals, manufacture of chemical compounds
Uses advised against	Not identified
Reason why uses advised against	Not identified
1.3 Details of the Supplier of the safety data sheet	
1.3.1 Details of the supplier of the safety data sheet	
Manufacturer/Supplier	MR TEK Ltd
Address	Room 06,13A/F., South Tower, World Finance Center, Harbour City, 17 Canton Road Tsim Sha Tsui, Kowloon,Hong kong China
Telephone number	0086 138 1854 7689

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, oral,(Category 4)	H302
Skin corrosion/irritation,(Category 2)	H315
Serious eye damage/eye irritation,(Category 2A)	H319
Acute toxicity, inhalation,(Category 4)	H332
Specific target organ toxicity, single exposure; Respiratory tract irritation,(Category 3)	H335
For the full text of the H-Statements mentioned in this Section, see Section 16.	

2.2 Label elements

2.2.1 GHS Label elements, including precautionary statements

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Signal word:	Warning
2.2.2 Hazard statement(s)	
H315	Causes skin irritation
H319	Causes serious eye irritation
H302	Harmful if swallowed
H332	Harmful if inhaled
H335	May cause respiratory irritation
2.2.3 Precautionary statement(s)	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Hazards not otherwise classified (HNOC) or not covered byGHS

none

SECTION 3: Composition/information on ingredients

Product identifier type in accordance	CAS No	Formula	Weight %	Molecular weight
(S)-5-(Hydroxymethyl)dihydrofuran-2(3H)-one	32780-06-6	C5H8O3	>98.0	116.1152 g/mol

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Consult a physician.

In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2 or section 11).

4.3 Indication of any immediate medical attention and special treatment needed

no data available.

SECTION 5: Firefighting 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

Carbon oxides, nitrogen oxides (NOx), Hydrogen bromide gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

no data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. For precautions see section 2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Storage temperature

Keep container tightly closed in a dry and well-ventilated place.

-10 °C.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1, no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Appropriate engineering controls

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

8.3 Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical Form

liquid

Color

Light yellow

Odor

Stench

Odor Threshold

no data available

Melting point

no data available

Boiling point/boiling range

308.9°C at 760 mmHg

Flammability

no data available

Explosive limits

no data available

pH

no data available

Flash point

>230 °F

Solubility

Miscible with water

Vapour density

no data available

Relative density

no data available

Vapor pressure

no data available

Upper/lower flammability

no data available

Auto-ignition temperature	no data available
Decomposition temperature	no data available
Specific Gravity	1.230
Viscosity	no data available
Particle characteristics	no data available
Explosive properties	no data available
Oxidizing properties	no data available
9.2 Other safety information	no data available

SECTION 10: Chemical Stability & Reactivity Information

10.1 Chemical stability	Stable under recommended storage conditions.
10.2 Reactivity	no data available
10.3 Possibility of hazardous reactions	None under normal
10.4 Conditions to avoid	Incompatible products.
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous Polymerization	Hazardous polymerization does not occur.
10.7 In the event of fire:	see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute toxicity	no data available
Skin corrosion/irritation	no data available
Serious eye damage/eye irritation	no data available
Respiratory or skin sensitization	The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling.
Germ cell mutagenicity	no data available
11.2 Carcinogenicity	
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
11.3 Reproductive toxicity	
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	no data available
Aspiration hazard	no data available
11.3 Additional Information	RTECS: Not available

SECTION 12: Ecological information

12.1 Toxicity	no data available
12.2 Persistence and degradability	Miscible with water Persistence is unlikely based on information available.
12.3 Bioaccumulative potential	no data available
12.4 Mobility	Will likely be mobile in the environment due to its water solubility.
12.5 Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
12.6 Other adverse effects	no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Product	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging	Dispose of as unused product.

SECTION 14: Transport Information

The product is not covered by international regulations on the transport of dangerous goods (IATA/IMDG/DOT).

SECTION 15: Regulatory information

15.1 Regulatory information	
SARA 302	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Acute Health Hazard
Massachusetts Right To Know Components	No components are subject to the Massachusetts Right to Know Act.
California Prop. 65 Components	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

16.1 Full text of H-Statements referred to under sections 2 and 3.

Acute Tox	Acute toxicity
Eye Irrit	Eye irritation
Skin Irrit	Skin irritation
H302	Harmful if swallowed

H315

Causes skin irritation

H319

Causes serious eye irritation

H332

Harmful if inhaled

H335

May cause respiratory irritation

16.2 Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MR Tek Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.