TCI EUROPE N.V.

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## SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

Rev	ision number: 1	Revision date:	10/03/2018
SECTION 1: Identification of the s	ubstance/mixture and of the company/undertaking		
1.1 Product identifiers			
Product name:	L-Ribose		
Product code:	R0068		
1.2 Relevant identified uses of the sub Identified uses:	stance or mixture and uses advised against Reagents.		
1.3 Details of the supplier of the safety Supplier:	data sheet		
TCI EUROPE N.V.			
Boerenveldseweg 6			
Haven 1063			
B-2070 Zwijndrecht			
Telephone: +32(0)3 735 07 00			
E-mail: sales-eu@tcichemicals	s.com		
1.4 Emergency telephone number:	+32(0)70 245 245		
SECTION 2: Hazards identification			
2.1 Classification of the substance or			
	ia for classification in any hazard class according to Regulation (EC) No 1	272/2008	
2.2 Label elements			
Pictograms or hazard symbols	None		
Signal word	No signal word		
Hazard statements	None		
Precautionary statements	None		
2.3 Other hazards			
Results of PBT and vPvB assessme	nt		
PBT:	Not applicable		
vPvB:	Not applicable		
SECTION 3: Composition/informa	tion on ingredients		
3.1 Substances			
Components:	L-Ribose		
Percent:	>98.0%(HPLC)		
CAS RN:	24259-59-4		
EC-No:	246-110-4		
Chemical Formula:	C5H10O5		
SECTION 4: First aid measures			
4.1 Description of first aid measures	Descent definite to force at the second s	a have at his so is	P 1
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable fo advice/attention if you feel unwell.	r breathing. Get mec	lical
Skin contact:	Remove/Take off immediately all contaminated clothing. Rinse skin wit or rash occurs: Get medical advice/attention.	h water/shower. If sk	in irritation
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lense	s, if present and eas	v to do
	Continue rinsing. If eye irritation persists: Get medical advice/attention.	· ·	,
Ingestion:	Get medical advice/attention if you feel unwell. Rinse mouth.		
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber	gloves and air-tight g	joggles.
<b>4.2 Most important symptoms and effe</b> No data available	cts, both acute and delayed		
<b>4.3 Indication of any immediate medic</b> No data available	al attention and special treatment needed		

SECTION 5: Firefighting measures	
5.1 Extinguishing media Suitable extinguishing media:	Dry shamiaal fear water array carbon diavida
Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
5.2 Special hazards arising from the substance or mixture	Carbon dioxide, Carbon monoxide
5.3 Advice for firefighters	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment
SECTION 6: Accidental release mea	
6.1 Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc
6.2 Environmental precautions	Prevent product from entering drains
6.3 Methods and materials for containment and cleaning up	Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
6.4 Reference to other sections	For disposal see section 13.
SECTION 7: Handling and storage	
7.1 Precautions for safe handling	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing.
7.2 Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a cool and dark place. Store under inert gas. Protect from moisture. Store away from incompatible materials such as oxidizing agents. Hygroscopic
7.3 Specific end use(s)	No further relevant information available.
SECTION 8: Exposure controls/per	
8.1 Control parameters	No data available
8.2 Exposure controls	Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.
Respiratory protection: Hand protection: Eye protection: Skin and body protection:	Dust respirator. Follow local and national regulations. Protective gloves. Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires.

SECTION 9: Physical and chemical properties		
9.1 Information on basic physical and cl		
Physical state (20°C):	Solid	
Form:	Crystal - Powder	
Colour:	White - Almost white	
Odour:	No data available	
pH:	No data available	
Melting point/freezing point:	90°C	
Boiling point/range:	No data available	
Flash point:	No data available	
Evaporation rate(Butyl Acetate=1):	No data available	
Flammability(solid, gas):	No data available	
Flammability or explosive limits:		
Lower:	No data available	
Upper:	No data available	
Vapour pressure:	No data available.	
Vapour density:	No data available	
Relative density:	No data available	
Solubility(ies):		
[Water]	Soluble	
[Other solvents]	No data available	
Partition coefficient:	No data available	
n-octanol/water:		
Autoignition temperature:	No data available	
Decomposition temperature:	No data available	
Dynamic Viscosity:	No data available	
Kinematic viscosity:	No data available	
	<b>N</b> I I <i>C</i> <b>N</b> I I	
9.2 Other safety information	No data available	

SECTION 10: Stability and reactivity	
10.1 Reactivity	No data available
10.2 Chemical stability	Stable under proper conditions.
10.3 Possibility of hazardous reactions	No special reactivity has been reported.
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	Oxidizing agents

10.6 Hazardous decomposition products Carbon dioxide, Carbon monoxide

SECTION 11: Toxicological information	
11.1 Information on toxicological effects	
Acute Toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	
IARC =	No data available
NTP =	No data available
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available

CECTION 12 Easter Hard / C	
SECTION 12: Ecological informat	lion
12.1 Toxicity Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Algae.	
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM ³/mol):	No data available
12.5 Results of PBT and vPvB assess	ment
PBT:	Not applicable
vPvB:	Not applicable
12.6 Other adverse effects	No data available
SECTION 13: Disposal considera	tions
13.1 Waste treatment methods	
	sult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent
	equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when
disposing of the substance.	
SECTION 14: Transport informati	on
14.1 UN number	Not listed
14.2 UN proper shipping name	Not listed
ADR/RID	Not listed
IMDG/IMO	
ICAO/IATA	Not listed
14.3 Transport hazard class(es)	
ADR/RID	Does not correspond to the classification standard of the United Nations
IMDG/IMO	Does not correspond to the classification standard of the United Nations
ICAO/IATA	Does not correspond to the classification standard of the United Nations
14.4 Packaging group	
14.4 Packaging group ADR/RID	
	-
IMDG/IMO ICAO/IATA	-

14.5 Environmental hazards	
Marine pollutant	

14.6 Special precautions for user No data available

SECTION 15: Regulatory information

 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Substance of Very High Concern (SVHC) according to the Not listed REACH Regulations (EC) No.1907/2006

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information	
Prepared by:	TCI EUROPE N.V.
Issue date:	10/03/2018

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

End of Safety Data Sheet