SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification

Product Code/Catalogue Number: 984306
SDS Number: D14474_SDS_D-Lactic Acid R1 _EN
Product Name **D-Lactic Acid R1**

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

Recommended Use Laboratory chemicals.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company **Thermo Fisher Scientific Oy**
Analyzers & Automation
Clinical Diagnostics
Ratastie 2, P.O. Box 100
FI-01621 Vantaa, Finland
Telephone number +358 10 329200
E-mail address system.support.fi@thermofisher.com

1.4. Emergency telephone number

CHEMTREC INTERNATIONAL +1 703-741-5970

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008
Based on available data, the classification criteria are not met
Classification according to EU Directives 67/548/EEC or 1999/45/EC
Not dangerous goods.

2.2. Label elements

None required

EUH210 - Safety data sheet available on request

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CLP Classification - Regulation (EC) No 1272/2008	DSD Classification - 67/548/EEC
Sodium azide (CAS #: 26628-22-8)	< 0.1 %	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)	T+; R28 R32 N; R50-53
1,3-Diamino-2-propanol (CAS #: 616-29-5)	1 - < 10 %	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	Xi; R36/37/38

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice
If symptoms persist, call a physician.

Inhalation
Move to fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Eye Contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion
Clean mouth with water and drink afterwards plenty of water.

4.2. Most important symptoms and effects, both acute and delayed
No information available.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray. alcohol-resistant foam. Dry chemical. Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons
No information available.

5.2. Special hazards arising from the substance or mixture
Thermal decomposition can lead to release of irritating gases and vapors.
Hazardous Combustion Products
None under normal use conditions.

5.3. Advice for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Ensure adequate ventilation.

6.2. Environmental precautions
Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

6.3. Methods and material for containment and cleaning up

6.4. Reference to other sections
Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Ensure adequate ventilation. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)
Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Component Exposure Limits

Component	Finland	European Union	The United Kingdom	Germany
Sodium azide	TWA: 0.1 mg/m³ 8 tunteina STEL: 0.3 mg/m³ 15 minuutteina Iho	Skin TWA 0.1 mg/m³ STEL 0.3 mg/m³	Skin TWA 0.1 mg/m³ STEL 0.3 mg/m³	MAK 0.2 mg/m³ (inhalable)

Component	Sweden	Norway	Denmark	France
Sodium azide	STV: 0.3 mg/m³ 15 minuter LLV: 0.1 mg/m³ 8 timmar. Hud	Hud Ceiling: 0.3 mg/m³	TWA: 0.1 mg/m³ 8 timer Hud	TWA / VME: 0.1 mg/m³ (8 heures). restrictive limit STEL / VLCT: 0.3 mg/m³. restrictive limit Peau

8.2. Exposure controls

Engineering Measures
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye Protection Safety glasses with side-shields (European standard - EN 166)
Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Disposable gloves	See manufacturers recommendations	-	EN 374	(minimum requirement)

Inspect gloves before use.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)
Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.
Remove gloves with care avoiding skin contamination.

Skin and body protection
Long sleeved clothing

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Small scale/Laboratory use
Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
When RPE is used a face piece Fit Test should be conducted

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	No information available	
Physical State	Liquid	
Odor	No information available	
Odor Threshold	No data available	
pH	No data available	
Melting Point/Range	No data available	
Softening Point	No data available	
Boiling Point/Range	No data available	
Flash Point	No data available	**Method -** No information available
Evaporation Rate	No data available	
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	(Air = 1.0)
Specific Gravity / Density	No data available	
Bulk Density	No data available	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	No data available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

9.2. Other information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Heavy metals.

10.6. Hazardous decomposition products

None under normal use conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information
No acute toxicity information is available for this product
(a) acute toxicity;
Oral Based on available data, the classification criteria are not met
Dermal Based on available data, the classification criteria are not met
Inhalation Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium azide	27 mg/kg (Rat)	50 mg/kg (Rat) 20 mg/kg (Rabbit)	

(b) skin corrosion/irritation;
Based on available data, the classification criteria are not met.
(c) serious eye damage/irritation;
Based on available data, the classification criteria are not met.

(d) respiratory or skin sensitization;
Respiratory
No data available.
Skin
No data available.

(e) germ cell mutagenicity;
No data available

(f) carcinogenicity;
No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity;
No data available.

(h) STOT-single exposure;
Based on available data, the classification criteria are not met.

(i) STOT-repeated exposure;
No data available.

Target Organs
No information available.

(j) aspiration hazard;
No data available.

Symptoms / effects,both acute and delayed
No information available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Sodium azide	5.46 mg/L LC50 96 h 0.7 mg/L LC50 96 h 0.8 mg/L LC50 96 h			

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT and vPvB assessment
No data available for assessment.

12.6. Other adverse effects
None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products
Dispose of in accordance with local regulations.

Contaminated Packaging
Dispose of in accordance with local regulations.

SECTION 14: TRANSPORT INFORMATION

	IMDG/IMO	ADR	IATA
	Not regulated	Not regulated	Not regulated
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-

14.5. Environmental hazards
No hazards identified

14.6. Special precautions for user
No special precautions required

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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

International Inventories X = listed

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Sodium azide	247-852-1	-		X	X	-	X	X	X	X	X
1,3-Diamino-2-propanol	210-474-2	-		X	-	X	-	X	X	X	X

National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Sodium azide	WGK 2	

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

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

H300 - Fatal if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
EUH032 - Contact with acids liberates very toxic gas

Full text of R-phrases referred to under sections 2 and 3

R28 - Very toxic if swallowed
R32 - Contact with acids liberates very toxic gas
R50 - Very toxic to aquatic organisms
R53 - May cause long-term adverse effects in the aquatic environment
R36/37/38 - Irritating to eyes, respiratory system and skin

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

VOC - Volatile Organic Compounds

Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Version	1
Revision Date	29-May-2015
Reason for revision	Update to CLP Format.

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.