

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**

Product Description: **Infinity Ammonia Reagent**
Cat No. : OSR61154

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

Recommended Use In vitro diagnostic.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company Fisher Diagnostics
A Division of Fisher Scientific Company, LLC
A Part of Thermo Fisher Scientific, Inc.
8365 Valley Pike
Middletown, VA 22645-1905
Tel: (800) 528-0494

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

Chemtrec US: (800) 424-9300
Chemtrec Outside US: +1 (703) 741-5970

SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****CLP Classification - Regulation (EC) No 1272/2008****Physical hazards**

Based on available data, the classification criteria are not met

Health hazards

Based on available data, the classification criteria are not met

Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

2.2. Label elements

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None required

EUH210 - Safety data sheet available on request

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	77-86-1	201-064-4	0.1<1.0	-
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	EEC No. 206-167-8	0.1<1.0	-
Sodium azide	26628-22-8	247-852-1	<0.1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	EEC No. 214-684-5	0.1<1.0	-
Water	7732-18-5	231-791-2	90<100	-
Adenosine 5-(trihydrogen diphosphate), P->5-ester with 1,4-dihydro-1-.beta.-D-ribofuranosyl-3-pyrid inecarboxamide, disodium salt	606-68-8	EEC No. 210-123-3	<0.1	-

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Sodium azide	-	1	-

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur.

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Self-Protection of the First Aider No special precautions required.

4.2. Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

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

Notes to Physician 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.

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

Carbon oxides.

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

Ensure adequate ventilation. Use personal protective equipment as required.

6.2. Environmental precautions

Should not be released into the environment.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal.
Prevent further leakage or spillage if safe to do so

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

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid

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ingestion and inhalation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class/LGK 12
Storage Class (LGK) (Germany)

Switzerland - Storage of hazardous substances

Storage class - SC 10/12

<https://www.kvu.ch/de/themen/stoffe-und-produkte>
<https://www.kvu.ch/fr/themes/substances-et-produits>
<https://www.kvu.ch/it/temi/sostanze-e-prodotti>

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am arbeitplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund). **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

Component	European Union	The United Kingdom	France	Belgium	Spain
Sodium azide	Skin TWA 0.1 mg/m ³ STEL 0.3 mg/m ³	Skin TWA 0.1 mg/m ³ STEL 0.3 mg/m ³	TWA / VME: 0.1 mg/m ³ (8 heures). restrictive limit STEL / VLCT: 0.3 mg/m ³ . restrictive limit Peau	Skin TWA 0.1 mg/m ³ STEL 0.3 mg/m ³	STEL / VLA-EC: 0.3 mg/m ³ (15 minutos). TWA / VLA-ED: 0.1 mg/m ³ (8 horas) Piel

Component	Italy	Germany	Portugal	The Netherlands	Finland
Sodium azide	TWA: 0.1 mg/m ³ 8 ore. Media Ponderata nel Tempo STEL: 0.3 mg/m ³ 15 minuti. Breve termine Pelle	MAK 0.2 mg/m ³ (inhalable)	STEL: 0.3 mg/m ³ 15 minutos Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm TWA: 0.1 mg/m ³ 8 horas Pele	huid STEL: 0.3 mg/m ³ 15 minuten TWA: 0.1 mg/m ³ 8 uren	TWA: 0.1 mg/m ³ 8 tunteina STEL: 0.3 mg/m ³ 15 minuutteina Iho

Component	Austria	Denmark	Switzerland	Poland	Norway
Sodium azide	Haut MAK-KZGW: 0.3 mg/m ³ 15 Minuten MAK-TMW: 0.1 mg/m ³ 8 Stunden	TWA: 0.1 mg/m ³ 8 timer Hud	STEL: 0.4 mg/m ³ 15 Minuten TWA: 0.2 mg/m ³ 8 Stunden	STEL: 0.3 mg/m ³ 15 minutach TWA: 0.1 mg/m ³ 8 godzinach	TWA: 0.1 mg/m ³ 8 timer STEL: 0.3 mg/m ³ 15 minutter. value from the regulation

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Sodium azide	TWA: 0.1 mg/m ³ STEL : 0.3 mg/m ³ Skin notation	kože TWA-GVI: 0.1 mg/m ³ 8 satima.	TWA: 0.1 mg/m ³ 8 hr. STEL: 0.3 mg/m ³ 15 min Skin	Skin-potential for cutaneous absorption STEL: 0.3 mg/m ³	TWA: 0.1 mg/m ³ 8 hodinách. Potential for cutaneous

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		STEL-KGVI: 0.3 mg/m ³ 15 minutama.		TWA: 0.1 mg/m ³	absorption Ceiling: 0.3 mg/m ³
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Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Sodium azide	Nahk TWA: 0.1 mg/m ³ 8 tundides. STEL: 0.3 mg/m ³ 15 minutites.	Skin notation TWA: 0.1 mg/m ³ 8 hr STEL: 0.3 mg/m ³ 15 min	STEL: 0.1 ppm STEL: 0.3 mg/m ³ TWA: 0.1 ppm TWA: 0.3 mg/m ³	STEL: 0.3 mg/m ³ 15 percekben. CK TWA: 0.1 mg/m ³ 8 órában. AK	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³ 8 klukkustundum. Skin notation

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Sodium azide	skin - potential for cutaneous exposure STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ IPRD Oda STEL: 0.3 mg/m ³	Possibility of significant uptake through the skin TWA: 0.1 mg/m ³ 8 Stunden STEL: 0.3 mg/m ³ 15 Minuten	possibility of significant uptake through the skin TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ 15 minutti	Skin notation TWA: 0.1 mg/m ³ 8 ore STEL: 0.3 mg/m ³ 15 minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Sodium azide		Ceiling: 0.3 mg/m ³ Potential for cutaneous absorption TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ 8 urah Koža STEL: 0.3 mg/m ³ 15 minutah	Binding STEL: 0.3 mg/m ³ 15 minuter TLV: 0.1 mg/m ³ 8 timmar. NGV	Deri TWA: 0.1 mg/m ³ 8 saat STEL: 0.3 mg/m ³ 15 dakika

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
1,3-Propanediol, 2-amino-2-(hydroxymethyl)- 77-86-1 (0.1<1.0)				DNEL = 166.7mg/kg bw/day
Sodium azide 26628-22-8 (<0.1)				DNEL = 46.7µg/kg bw/day
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride 1185-53-1 (0.1<1.0)				DNEL = 216.6mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
1,3-Propanediol, 2-amino-2-(hydroxymethyl)- 77-86-1 (0.1<1.0)				DNEL = 117.5mg/m ³
Sodium azide 26628-22-8 (<0.1)				DNEL = 0.164mg/m ³
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride				DNEL = 152.8mg/m ³

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1185-53-1 (0.1<1.0)				
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Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
1,3-Propanediol, 2-amino-2-(hydroxymethyl) - 77-86-1 (0.1<1.0)				PNEC = 300mg/L	
Sodium azide 26628-22-8 (<0.1)	PNEC = 0.35µg/L	PNEC = 16.7µg/kg sediment dw	PNEC = 3.5µg/L	PNEC = 30µg/L	

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Sodium azide 26628-22-8 (<0.1)	PNEC = 15ng/L	PNEC = 0.72µg/kg sediment dw	PNEC = 150ng/L		

8.2. Exposure controls

Engineering Measures

None under normal use conditions.

Personal protective equipment

Eye Protection

Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments (minimum requirement)
Natural rubber	See manufacturers recommendations	-	EN 374	
Nitrile rubber				
Neoprene				
PVC				

Skin and body protection

Long sleeved clothing.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, 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. gloves with care avoiding skin contamination.

Respiratory Protection

No protective equipment is needed under normal use conditions.

Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particle filter

Small scale/Laboratory use

Maintain adequate ventilation

Environmental exposure controls

No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

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Physical State	Liquid	
Appearance	Clear, colorless	
Odor	Mild	
Odor Threshold	No data available	
Melting Point/Range	No data available	
Softening Point	No data available	
Boiling Point/Range	100 °C / 212 °F	
Flammability (liquid)	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Flash Point	No data available	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
pH	8.7	
Viscosity	No data available	
Water Solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
1,3-Propanediol,	-3.6	
2-amino-2-(hydroxymethyl)-, hydrochloride		
Vapor Pressure	No data available	
Density / Specific Gravity	1.006 kg/L @ 20C	
Bulk Density	Not applicable	Liquid
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

9.2. Other information

Explosive Properties	Not explosive
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SECTION 10: STABILITY AND REACTIVITY

<u>10.1. Reactivity</u>	None known, based on information available
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<u>10.2. Chemical stability</u>	Stable under recommended storage conditions.
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10.3. Possibility of hazardous reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

<u>10.4. Conditions to avoid</u>	Incompatible products. Excess heat.
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<u>10.5. Incompatible materials</u>	None known.
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<u>10.6. Hazardous decomposition products</u>	Carbon oxides.
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SECTION 11: TOXICOLOGICAL INFORMATION

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11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

(a) acute toxicity;

Oral

Dermal

Inhalation

Based on available data, the classification criteria are not met

Based on available data, the classification criteria are not met

Based on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	LD50 = 5900 mg/kg (Rat)	LD50 > 5000 mg/kg (Rat)	-
Sodium azide	LD50 = 27 mg/kg (Rat)	-	LC50 0.054 - 0.52 mg/L (Rat) 4 h
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	OECD 425 (Rat) LD50 > 5000 mg/kg bw	OECD 402 (Rat) LD50 > 5000 mg/kg bw	-
Water	-	-	-

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory

Skin

No data available

No data available

(e) germ cell mutagenicity; No data available

Component	Test method	Test species	Study result
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride 1185-53-1 (0.1<1.0)	OECD Test Guideline 406	guinea pig	non-sensitising

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs

None known.

(j) aspiration hazard; No data available

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Symptoms / effects, both acute and delayed No information available.

11.2. Information on other hazards

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

The environmental impact of this product has not been fully investigated.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Sodium azide	LC50: = 0.7 mg/L, 96h (Lepomis macrochirus) LC50: = 0.8 mg/L, 96h (Oncorhynchus mykiss) LC50: = 5.46 mg/L, 96h flow-through (Pimephales promelas)		
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride		Daphnia Magna EC50 >100 mg/L (48h)	

Component	Microtox	M-Factor
Sodium azide		1
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	OECD 209 EC50 > 1000 mg/L (3h)	

12.2. Persistence and degradability

Persistence

Soluble in water, Persistence is unlikely, based on information available.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	-3.6	No data available

12.4. Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB assessment

No data available for assessment.

12.6. Endocrine disrupting properties

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant
Ozone Depletion Potential

This product does not contain any known or suspected substance

This product does not contain any known or suspected substance

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SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.
Contaminated Packaging	Dispose of contents/containers in accordance with local regulations.
European Waste Catalogue (EWC)	According to the European Waste Catalog, Waste Codes are not product specific, but application specific.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.
Switzerland - Waste Ordinance	Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance, ADWO) SR 814.600 https://www.fedlex.admin.ch/eli/cc/2015/891/en

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO	Not regulated
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14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

N/A

ADR	Not regulated
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14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

N/A

14.5. Environmental hazards

No hazards identified

14.6. Special precautions for user

No special precautions required

14.7. Maritime transport in bulk according to IMO instruments

Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

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X = listed, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS), Taiwan (TCSI), Japan (ISHL), New Zealand (NZIoC), Japan (ISHL). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	77-86-1	201-064-4	-	-	X	X	KE-01403	X	X
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	206-167-8	-	-	-	X	-	-	-
Sodium azide	26628-22-8	247-852-1	-	-	X	X	KE-31357	X	X
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	214-684-5	-	-	X	X	KE-34819	X	-
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-
Adenosine 5-(trihydrogen diphosphate), P->5-ester with 1,4-dihydro-1-.beta.-D-ribofuranosyl-3-pyridinecarboxamide, disodium salt	606-68-8	210-123-3	-	-	-	X	-	-	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	77-86-1	X	ACTIVE	X	-	X	X	X
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	-	-	X	-	X	X	-
Sodium azide	26628-22-8	X	ACTIVE	X	-	X	X	X
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	X	ACTIVE	X	-	X	X	X
Water	7732-18-5	X	ACTIVE	X	-	X	X	X
Adenosine 5-(trihydrogen diphosphate), P->5-ester with 1,4-dihydro-1-.beta.-D-ribofuranosyl-3-pyridinecarboxamide, disodium salt	606-68-8	X	ACTIVE	X	-	X	X	-

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

Authorisation/Restrictions according to EU REACH

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	77-86-1	Not applicable	Not applicable
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	Not applicable	Not applicable
Sodium azide	26628-22-8	Not applicable	Not applicable
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	Not applicable	Not applicable
Water	7732-18-5	Not applicable	Not applicable
Adenosine 5-(trihydrogen diphosphate), P->5-ester with 1,4-dihydro-1-.beta.-D-ribofuranosyl-3-pyridinecarboxamide, disodium salt	606-68-8	Not applicable	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

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Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

Water endangering class = 3 (self classification)

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-	WGK1	
Sodium azide	WGK2	
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	WGK1	

Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

SECTION 16: OTHER INFORMATION

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

H300 - Fatal if swallowed

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

EUH032 - Contact with acids liberates very toxic gas

Legend

CAS - Chemical Abstracts Service

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

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

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

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

TWA - Time Weighted Average

ACGIH - American Conference of Governmental Industrial Hygienists

IARC - International Agency for Research on Cancer

DNEL - Derived No Effect Level

Predicted No Effect Concentration (PNEC)

RPE - Respiratory Protective Equipment

LD50 - Lethal Dose 50%

LC50 - Lethal Concentration 50%

EC50 - Effective Concentration 50%

NOEC - No Observed Effect Concentration

POW - Partition coefficient Octanol:Water

PBT - Persistent, Bioaccumulative, Toxic

vPvB - very Persistent, very Bioaccumulative

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

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

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

MARPOL - International Convention for the Prevention of Pollution from Ships

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OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor

ATE - Acute Toxicity Estimate
VOC - (volatile organic compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data
Health Hazards Calculation method
Environmental hazards Calculation method

Training Advice

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

Revision Date 28-Jan-2022
Revision Summary SDS sections updated.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No
1907/2006 .**

**For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2,
Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and
Preparations).**

Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**

Product Description: Infinity Ammonia Standard
Cat No. : OSR61154

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

Recommended Use In vitro diagnostic.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company Fisher Diagnostics
A Division of Fisher Scientific Company, LLC
A Part of Thermo Fisher Scientific, Inc.
8365 Valley Pike
Middletown, VA 22645-1905
Tel: (800) 528-0494

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

Chemtrec US: (800) 424-9300
Chemtrec Outside US: +1 (703) 741-5970

SECTION 2: HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****CLP Classification - Regulation (EC) No 1272/2008****Physical hazards**

Based on available data, the classification criteria are not met

Health hazards

Based on available data, the classification criteria are not met

Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

2.2. Label elements

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None required

EUH210 - Safety data sheet available on request

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Sodium azide	26628-22-8	247-852-1	<0.1	Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) (EUH032)
Water	7732-18-5	231-791-2	90<100	-
Ammonium chloride	12125-02-9	235-186-4	<0.001	Acute Tox. 4 (H302) Eye Irrit. 2 (H319)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Sodium azide	-	1	-

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Self-Protection of the First Aider	No special precautions required.

4.2. Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

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

Notes to Physician 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.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

None reasonably foreseeable.

Hazardous Combustion Products

Carbon oxides.

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

Ensure adequate ventilation. Use personal protective equipment as required.

6.2. Environmental precautions

Should not be released into the environment.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal.

Prevent further leakage or spillage if safe to do so

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

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

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7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Technical Rules for Hazardous Substances (TRGS) 510
Storage Class (LGK) (Germany)

Switzerland - Storage of hazardous substances

Storage Class/LGK 12

Storage class - SC 10/12

<https://www.kvu.ch/de/themen/stoffe-und-produkte>
<https://www.kvu.ch/fr/themes/substances-et-produits>
<https://www.kvu.ch/it/temi/sostanze-e-prodotti>

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am arbeitplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund). **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

Component	European Union	The United Kingdom	France	Belgium	Spain
Sodium azide	Skin TWA 0.1 mg/m ³ STEL 0.3 mg/m ³	Skin TWA 0.1 mg/m ³ STEL 0.3 mg/m ³	TWA / VME: 0.1 mg/m ³ (8 heures). restrictive limit STEL / VLCT: 0.3 mg/m ³ . restrictive limit Peau	Skin TWA 0.1 mg/m ³ STEL 0.3 mg/m ³	STEL / VLA-EC: 0.3 mg/m ³ (15 minutos). TWA / VLA-ED: 0.1 mg/m ³ (8 horas) Piel
Ammonium chloride		STEL: 20 mg/m ³ 15 min TWA: 10 mg/m ³ 8 hr	TWA / VME: 10 mg/m ³ (8 heures).	TWA: 10 mg/m ³ 8 uren STEL: 20 mg/m ³ 15 minuten	STEL / VLA-EC: 20 mg/m ³ (15 minutos). TWA / VLA-ED: 10 mg/m ³ (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Sodium azide	TWA: 0.1 mg/m ³ 8 ore. Media Ponderata nel Tempo STEL: 0.3 mg/m ³ 15 minuti. Breve termine Pelle	MAK 0.2 mg/m ³ (inhalable)	STEL: 0.3 mg/m ³ 15 minutos Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm TWA: 0.1 mg/m ³ 8 horas Pele	huid STEL: 0.3 mg/m ³ 15 minuten TWA: 0.1 mg/m ³ 8 uren	TWA: 0.1 mg/m ³ 8 tunteina STEL: 0.3 mg/m ³ 15 minuutteina Iho
Ammonium chloride			STEL: 20 mg/m ³ 15 minutos TWA: 10 mg/m ³ 8 horas		

Component	Austria	Denmark	Switzerland	Poland	Norway
Sodium azide	Haut MAK-KZGW: 0.3 mg/m ³ 15 Minuten MAK-TMW: 0.1 mg/m ³ 8 Stunden	TWA: 0.1 mg/m ³ 8 timer Hud	STEL: 0.4 mg/m ³ 15 Minuten TWA: 0.2 mg/m ³ 8 Stunden	STEL: 0.3 mg/m ³ 15 minutach TWA: 0.1 mg/m ³ 8 godzinach	TWA: 0.1 mg/m ³ 8 timer STEL: 0.3 mg/m ³ 15 minutter. value from the regulation
Ammonium chloride		TWA: 10 mg/m ³ 8 timer	TWA: 3 mg/m ³ 8 Stunden	STEL: 20 mg/m ³ 15 minutach TWA: 10 mg/m ³ 8 godzinach	TWA: 10 mg/m ³ 8 timer STEL: 20 mg/m ³ 15 minutter. set equal to the limit value for Nuisance dust

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Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Sodium azide	TWA: 0.1 mg/m ³ STEL : 0.3 mg/m ³ Skin notation	kože TWA-GV: 0.1 mg/m ³ 8 satima. STEL-KGVI: 0.3 mg/m ³ 15 minutama.	TWA: 0.1 mg/m ³ 8 hr. STEL: 0.3 mg/m ³ 15 min Skin	Skin-potential for cutaneous absorption STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ 8 hodinách. Potential for cutaneous absorption Ceiling: 0.3 mg/m ³
Ammonium chloride	TWA: 10.0 mg/m ³	TWA-GV: 10 mg/m ³ 8 satima. STEL-KGVI: 20 mg/m ³ 15 minutama.	TWA: 10 mg/m ³ 8 hr. fume STEL: 20 mg/m ³ 15 min		TWA: 5 mg/m ³ 8 hodinách. fume Ceiling: 10 mg/m ³ fume

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Sodium azide	Nahk TWA: 0.1 mg/m ³ 8 tundides. STEL: 0.3 mg/m ³ 15 minutites.	Skin notation TWA: 0.1 mg/m ³ 8 hr STEL: 0.3 mg/m ³ 15 min	STEL: 0.1 ppm STEL: 0.3 mg/m ³ TWA: 0.1 ppm TWA: 0.3 mg/m ³	STEL: 0.3 mg/m ³ 15 percekben. CK TWA: 0.1 mg/m ³ 8 órában. AK	STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³ 8 klukkustundum. Skin notation
Ammonium chloride			STEL: 20 mg/m ³ TWA: 10 mg/m ³		TWA: 10 mg/m ³ 8 klukkustundum. fume Ceiling: 20 mg/m ³ fume

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Sodium azide	skin - potential for cutaneous exposure STEL: 0.3 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ IPRD Oda STEL: 0.3 mg/m ³	Possibility of significant uptake through the skin TWA: 0.1 mg/m ³ 8 Stunden STEL: 0.3 mg/m ³ 15 Minuten	possibility of significant uptake through the skin TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ 15 minuti	Skin notation TWA: 0.1 mg/m ³ 8 ore STEL: 0.3 mg/m ³ 15 minute
Ammonium chloride	TWA: 10 mg/m ³	TWA: 10 mg/m ³ IPRD			TWA: 5 mg/m ³ 8 ore STEL: 10 mg/m ³ 15 minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Sodium azide		Ceiling: 0.3 mg/m ³ Potential for cutaneous absorption TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ 8 urah Koža STEL: 0.3 mg/m ³ 15 minutah	Binding STEL: 0.3 mg/m ³ 15 minuter TLV: 0.1 mg/m ³ 8 timmar. NGV	Deri TWA: 0.1 mg/m ³ 8 saat STEL: 0.3 mg/m ³ 15 dakika
Ammonium chloride	MAC: 10 mg/m ³				

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Sodium azide 26628-22-8 (<0.1)				DNEL = 46.7µg/kg bw/day
Ammonium chloride 12125-02-9 (<0.001)				DNEL = 128.9mg/kg bw/day DNEL = 190mg/kg bw/day

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Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Sodium azide 26628-22-8 (<0.1)				DNEL = 0.164mg/m ³
Ammonium chloride 12125-02-9 (<0.001)				DNEL = 33.5mg/m ³ DNEL = 43.97mg/m ³

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Sodium azide 26628-22-8 (<0.1)	PNEC = 0.35µg/L	PNEC = 16.7µg/kg sediment dw	PNEC = 3.5µg/L	PNEC = 30µg/L	
Ammonium chloride 12125-02-9 (<0.001)	PNEC = 0.25mg/L PNEC = 1.2mg/L		PNEC = 0.43mg/L PNEC = 1.2mg/L	PNEC = 16.2mg/L	PNEC = 0.163mg/kg soil dw PNEC = 50.7mg/kg soil dw

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Sodium azide 26628-22-8 (<0.1)	PNEC = 15ng/L	PNEC = 0.72µg/kg sediment dw	PNEC = 150ng/L		
Ammonium chloride 12125-02-9 (<0.001)	PNEC = 0.025mg/L PNEC = 11.2mg/L				

8.2. Exposure controls

Engineering Measures

None under normal use conditions.

Personal protective equipment

Eye Protection

Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments (minimum requirement)
Natural rubber	See manufacturers recommendations	-	EN 374	
Nitrile rubber				
Neoprene				
PVC				

Skin and body protection

Long sleeved clothing.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, 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. gloves with care avoiding skin contamination.

Respiratory Protection

No protective equipment is needed under normal use conditions.

Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particle filter

Small scale/Laboratory use

Maintain adequate ventilation

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Environmental exposure controls No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Liquid	
Appearance	Clear, colorless	
Odor	Mild	
Odor Threshold	No data available	
Melting Point/Range	No data available	
Softening Point	No data available	
Boiling Point/Range	100 °C / 212 °F	
Flammability (liquid)	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Flash Point	No data available	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
pH	7.4	
Viscosity	No data available	
Water Solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
Ammonium chloride	-4.38	
Vapor Pressure	No data available	
Density / Specific Gravity	0.999 kg/L @ 20C	
Bulk Density	Not applicable	Liquid
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

9.2. Other information

Explosive Properties	Not explosive
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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	None known, based on information available
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10.2. Chemical stability	Stable under recommended storage conditions.
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10.3. Possibility of hazardous reactions

Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

10.4. Conditions to avoid	Incompatible products. Excess heat.
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10.5. Incompatible materials	None known.
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10.6. Hazardous decomposition products

Carbon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

(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

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium azide	LD50 = 27 mg/kg (Rat)	-	LC50 0.054 - 0.52 mg/L (Rat) 4 h
Water	-	-	-
Ammonium chloride	1650 mg/kg (Rat)	> 2000 mg/kg	-

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(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; No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.

(j) aspiration hazard; No data available

Symptoms / effects, both acute and delayed No information available.

11.2. Information on other hazards

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Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

The environmental impact of this product has not been fully investigated.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Sodium azide	LC50: = 0.7 mg/L, 96h (Lepomis macrochirus) LC50: = 0.8 mg/L, 96h (Oncorhynchus mykiss) LC50: = 5.46 mg/L, 96h flow-through (Pimephales promelas)		
Ammonium chloride	Cyprinus carpio: LC50 = 209 mg/L	EC50 = 202 mg/L/24h	-

Component	Microtox	M-Factor
Sodium azide		1
Ammonium chloride	-	

12.2. Persistence and degradability

Persistence

Soluble in water, Persistence is unlikely, based on information available.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Ammonium chloride	-4.38	No data available

12.4. Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

12.5. Results of PBT and vPvB assessment

No data available for assessment.

12.6. Endocrine disrupting properties

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected substance

This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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Contaminated Packaging	Dispose of contents/containers in accordance with local regulations.
European Waste Catalogue (EWC)	According to the European Waste Catalog, Waste Codes are not product specific, but application specific.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.
Switzerland - Waste Ordinance	Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance, ADWO) SR 814.600 https://www.fedlex.admin.ch/eli/cc/2015/891/en

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

N/A

14.4. Packing group

ADR Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

IATA Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

N/A

14.4. Packing group

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required

14.7. Maritime transport in bulk according to IMO instruments Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories

China, X = listed, Australia, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS), Taiwan (TCSI), Japan (ISHL), New Zealand (NZIoC), Japan (ISHL). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Sodium azide	26628-22-8	247-852-1	-	-	X	X	KE-31357	X	X
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-
Ammonium chloride	12125-02-9	235-186-4	-	-	X	X	KE-01645	X	X

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Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Sodium azide	26628-22-8	X	ACTIVE	X	-	X	X	X
Water	7732-18-5	X	ACTIVE	X	-	X	X	X
Ammonium chloride	12125-02-9	X	ACTIVE	X	-	X	X	X

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Ammonium chloride	-	Use restricted. See item 75. (see link for restriction details) Use restricted. See item 65. (see link for restriction details)	-

<https://echa.europa.eu/substances-restricted-under-reach>

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Sodium azide	26628-22-8	Not applicable	Not applicable
Water	7732-18-5	Not applicable	Not applicable
Ammonium chloride	12125-02-9	Not applicable	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification Water endangering class = 3 (self classification)

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Sodium azide	WGK2	
Ammonium chloride	WGK1	

Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Ammonium chloride 12125-02-9 (<0.001)	Prohibited and Restricted Substances		

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15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

SECTION 16: OTHER INFORMATION

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

H300 - Fatal if swallowed
H302 - Harmful if swallowed
H319 - Causes serious eye 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

Legend

CAS - Chemical Abstracts Service

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

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

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

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

TWA - Time Weighted Average

ACGIH - American Conference of Governmental Industrial Hygienists

IARC - International Agency for Research on Cancer

DNEL - Derived No Effect Level

Predicted No Effect Concentration (PNEC)

RPE - Respiratory Protective Equipment

LD50 - Lethal Dose 50%

LC50 - Lethal Concentration 50%

EC50 - Effective Concentration 50%

NOEC - No Observed Effect Concentration

POW - Partition coefficient Octanol:Water

PBT - Persistent, Bioaccumulative, Toxic

vPvB - very Persistent, very Bioaccumulative

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

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

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

MARPOL - International Convention for the Prevention of Pollution from Ships

OECD - Organisation for Economic Co-operation and Development

ATE - Acute Toxicity Estimate

BCF - Bioconcentration factor

VOC - (volatile organic compound)

Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

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

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data

Health Hazards Calculation method

Environmental hazards Calculation method

Training Advice

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

Revision Date 28-Jan-2022

Revision Summary SDS sections updated.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 .

For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and

SAFETY DATA SHEET

Infinity Ammonia Standard

Revision Date 28-Jan-2022

Preparations).

Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of Safety Data Sheet

SAFETY DATA SHEET

Revision Date 28-Jan-2022

Revision Number 1

1. Identification

Product Name	Infinity Ammonia Reagent
Cat No. :	OSR61154
Synonyms	No information available
Recommended Use	In vitro diagnostic.
Uses advised against	Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Fisher Diagnostics
A Division of Fisher Scientific Company, LLC
A Part of Thermo Fisher Scientific, Inc.
8365 Valley Pike
Middletown, VA 22645-1905
Tel: (800) 528-0494

Emergency Telephone Number Chemtrec US: (800) 424-9300
Chemtrec Outside US: +1 (703) 741-5970

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label Elements

None required

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

OSHA Hazard Classification The product contains no substances which at their given concentration, are considered to be hazardous to health

Component	CAS No	Weight %
Tris (hydroxymethyl) aminomethane	77-86-1	0.1<1.0
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	0.1<1.0
Sodium azide	26628-22-8	<0.1
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	0.1<1.0
Water	7732-18-5	90<100

4. First-aid measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	Water may be ineffective
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No
Sensitivity to Static Discharge	No

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon oxides.
Carbon oxides.

Protective Equipment and Precautions for Firefighters

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

NFPA

Health	Flammability	Instability	Physical hazards
0	0	0	N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required.
Environmental Precautions	Should not be released into the environment.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.
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Storage. Keep container tightly closed.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Sodium azide	Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm	Skin (Vacated) Ceiling: 0.1 ppm (Vacated) Ceiling: 0.3 mg/m ³	Ceiling: 0.1 ppm Ceiling: 0.3 mg/m ³	Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Engineering Measures None under normal use conditions.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection No protective equipment is needed under normal use conditions.

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

9. Physical and chemical properties

Physical State	Liquid
Appearance	Clear, colorless
Odor	Mild
Odor Threshold	No information available
pH	8.7
Melting Point/Range	No data available
Boiling Point/Range	100 °C / 212 °F
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available

Lower Vapor Pressure	No data available
Vapor Density	No information available
Density	1.006 kg/L @ 20C
Specific Gravity	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under recommended storage conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon oxides
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Vapor LC50	Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Tris (hydroxymethyl) aminomethane	LD50 = 5900 mg/kg (Rat)	LD50 > 5000 mg/kg (Rat)	Not listed
Sodium azide	LD50 = 27 mg/kg (Rat)	-	LC50 0.054 - 0.52 mg/L (Rat) 4 h
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	OECD 425 (Rat) LD50 > 5000 mg/kg bw	OECD 402 (Rat) LD50 > 5000 mg/kg bw	Not listed
Water	-	-	-

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Tris (hydroxymethyl) aminomethane	77-86-1	Not listed				
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	Not listed				
Sodium azide	26628-22-8	Not listed				
1,3-Propanediol,	1185-53-1	Not listed				

2-amino-2-(hydroxymethyl)- hydrochloride						
Water	7732-18-5	Not listed				
Mutagenic Effects	No information available					
Reproductive Effects	No information available.					
Developmental Effects	No information available.					
Teratogenicity	No information available.					
STOT - single exposure	None known					
STOT - repeated exposure	None known					
Aspiration hazard	No information available					
Symptoms / effects, both acute and delayed	No information available					
Endocrine Disruptor Information	No information available					
Other Adverse Effects	The toxicological properties have not been fully investigated.					

12. Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sodium azide	Not listed	LC50: = 0.7 mg/L, 96h (Lepomis macrochirus) LC50: = 0.8 mg/L, 96h (Oncorhynchus mykiss) LC50: = 5.46 mg/L, 96h flow-through (Pimephales promelas)	Not listed	Not listed
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	Not listed	Not listed	OECD 209 EC50 > 1000 mg/L (3h)	Daphnia Magna EC50 >100 mg/L (48h)

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

Component	log Pow
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	-3.6

13. Disposal considerations

Waste Disposal Methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport information

<u>DOT</u>	NOT REGULATED
<u>Hazard Class</u>	N/A
<u>TDG</u>	Not regulated

IATA	Not regulated
Hazard Class	N/A
IMDG/IMO	Not regulated
Hazard Class	N/A

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Tris (hydroxymethyl) aminomethane	77-86-1	X	ACTIVE	-
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	-	-	-
Sodium azide	26628-22-8	X	ACTIVE	-
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	X	ACTIVE	-
Water	7732-18-5	X	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

X = listed, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS), Taiwan (TCSI), Japan (ISHL), New Zealand (NZIoC), Japan (ISHL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Tris (hydroxymethyl) aminomethane	77-86-1	X	-	201-064-4	X	X	X	X	X	KE-01403
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	X	-	206-167-8	-	-		X	-	-
Sodium azide	26628-22-8	X	-	247-852-1	X	X	X	X	X	KE-31357
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	X	-	214-684-5	X	X		X	X	KE-34819
Water	7732-18-5	X	-	231-791-2	X	X		X	X	KE-35400

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Sodium azide	26628-22-8	<0.1	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium azide	1000 lb	1000 lb

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know
Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sodium azide	X	X	X	-	X
Water	-	-	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): Y
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland
Security**

This product contains the following DHS chemicals:

Legend - STQs = Screening Threshold Quantities, APA = A placarded amount

Component	DHS Chemical Facility Anti-Terrorism Standard
Sodium azide	Theft STQs - 400lb

Other International Regulations**Mexico - Grade**

No information available

Authorisation/Restrictions according to EU REACH**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Tris (hydroxymethyl) aminomethane	77-86-1	Listed	Not applicable	Not applicable	Not applicable
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	Not applicable	Not applicable	Not applicable	Not applicable
Sodium azide	26628-22-8	Not applicable	Not applicable	Not applicable	Not applicable
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	Not applicable	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Tris (hydroxymethyl) aminomethane	77-86-1	Not applicable	Not applicable	Not applicable	Not applicable
Pentanedioic acid, 2-oxo-, disodium salt	305-72-6	Not applicable	Not applicable	Not applicable	Not applicable
Sodium azide	26628-22-8	Not applicable	Not applicable	Not applicable	Not applicable
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	Not applicable	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By	Regulatory Affairs Regulatory Affairs Fisher DiagnosticsA Division of Fisher Scientific Co. LLC A Part of Thermo Fisher Scientific, Inc.Tel: (800) 528-0494
Revision Date	28-Jan-2022
Print Date	28-Jan-2022
Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

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End of SDS

SAFETY DATA SHEET

Revision Date 28-Jan-2022

Revision Number 1

1. Identification

Product Name	Infinity Ammonia Standard
Cat No. :	OSR61154
Synonyms	No information available
Recommended Use	In vitro diagnostic.
Uses advised against	Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Fisher Diagnostics
A Division of Fisher Scientific Company, LLC
A Part of Thermo Fisher Scientific, Inc.
8365 Valley Pike
Middletown, VA 22645-1905
Tel: (800) 528-0494

Emergency Telephone Number Chemtrec US: (800) 424-9300
Chemtrec Outside US: +1 (703) 741-5970

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Label Elements

None required

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

OSHA Hazard Classification The product contains no substances which at their given concentration, are considered to be hazardous to health

Component	CAS No	Weight %
Sodium azide	26628-22-8	<0.1
Water	7732-18-5	90<100
Ammonium chloride	12125-02-9	<0.001

4. First-aid measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	Water may be ineffective
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No
Sensitivity to Static Discharge	No

Specific Hazards Arising from the Chemical

None reasonably foreseeable.

Hazardous Combustion Products

Carbon oxides.

Carbon oxides.

Protective Equipment and Precautions for Firefighters

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

NFPA

Health
0

Flammability
0

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required.
Environmental Precautions	Should not be released into the environment.

Methods for Containment and Clean Sweep up and shovel into suitable containers for disposal.

Up

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.
Storage.	Keep container tightly closed.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Sodium azide	Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm	Skin (Vacated) Ceiling: 0.1 ppm (Vacated) Ceiling: 0.3 mg/m ³	Ceiling: 0.1 ppm Ceiling: 0.3 mg/m ³	Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm
Ammonium chloride	TWA: 10 mg/m ³ STEL: 20 mg/m ³	(Vacated) TWA: 10 mg/m ³ (Vacated) STEL: 20 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Engineering Measures None under normal use conditions.

Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	No protective equipment is needed under normal use conditions.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Clear, colorless
Odor	Mild
Odor Threshold	No information available
pH	7.4
Melting Point/Range	No data available
Boiling Point/Range	100 °C / 212 °F
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available

Vapor Density	No information available
Density	0.999 kg/L @ 20C
Specific Gravity	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under recommended storage conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon oxides
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Vapor LC50	Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium azide	LD50 = 27 mg/kg (Rat)	-	LC50 0.054 - 0.52 mg/L (Rat) 4 h
Water	-	-	-
Ammonium chloride	1650 mg/kg (Rat)	> 2000 mg/kg	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Sodium azide	26628-22-8	Not listed				
Water	7732-18-5	Not listed				
Ammonium chloride	12125-02-9	Not listed				

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure	None known
STOT - repeated exposure	None known
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	No information available
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sodium azide	Not listed	LC50: = 0.7 mg/L, 96h (Lepomis macrochirus) LC50: = 0.8 mg/L, 96h (Oncorhynchus mykiss) LC50: = 5.46 mg/L, 96h flow-through (Pimephales promelas)	Not listed	Not listed
Ammonium chloride	-	Cyprinus carpio: LC50 = 209 mg/L	-	EC50 = 202 mg/L/24h

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Ammonium chloride	-4.38

13. Disposal considerations

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport information

DOT	NOT REGULATED
Hazard Class	N/A
TDG	Not regulated
IATA	Not regulated
Hazard Class	N/A
IMDG/IMO	Not regulated
Hazard Class	N/A

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Sodium azide	26628-22-8	X	ACTIVE	-

Water	7732-18-5	X	ACTIVE	-
Ammonium chloride	12125-02-9	X	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable**International Inventories**

China, X = listed, Australia, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS), Taiwan (TCSI), Japan (ISHL), New Zealand (NZIoC), Japan (ISHL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Sodium azide	26628-22-8	X	-	247-852-1	X	X	X	X	X	KE-31357
Water	7732-18-5	X	-	231-791-2	X	X		X	X	KE-35400
Ammonium chloride	12125-02-9	X	-	235-186-4	X	X	X	X	X	KE-01645

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**U.S. Federal Regulations****SARA 313**

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Sodium azide	26628-22-8	<0.1	1.0
Ammonium chloride	12125-02-9	<0.001	1.0

SARA 311/312 Hazard Categories See section 2 for more information**CWA (Clean Water Act)**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Ammonium chloride	X	5000 lb	-	-

Clean Air Act Not applicable**OSHA - Occupational Safety and Health Administration** Not applicable**CERCLA** Not applicable

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium azide	1000 lb	1000 lb
Ammonium chloride	5000 lb	-

U.S. State Regulations**California Proposition 65** This product does not contain any Proposition 65 chemicals.**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sodium azide	X	X	X	-	X
Water	-	-	X	-	-
Ammonium chloride	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ): Y
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product contains the following DHS chemicals:
Legend - STQs = Screening Threshold Quantities, APA = A placarded amount

Component	DHS Chemical Facility Anti-Terrorism Standard
Sodium azide	Theft STQs - 400lb

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Ammonium chloride	-	Use restricted. See item 75. (see link for restriction details) Use restricted. See item 65. (see link for restriction details)	-

<https://echa.europa.eu/substances-restricted-under-reach>

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Sodium azide	26628-22-8	Not applicable	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
Ammonium chloride	12125-02-9	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Sodium azide	26628-22-8	Not applicable	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable
Ammonium chloride	12125-02-9	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

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Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of SDS