Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and Commission Delegated Regulation (EU) 2023/707, and (EC) No. 1907/2006 (REACH), as amended by Commission Regulation (EU) 2020/878.

qPCR Enzyme Mix

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

1.1 Product identifier

Product Name: qPCR Enzyme Mix
Product code: A01027

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

Relevant identified uses: For Research Use Only.
Uses advised against: Not for Use in Diagnostic Procedures.
Reasons why uses advised against: Not determined or not applicable.

1.3 Details of the manufacturer/supplier of the safety data sheet

Manufacturer:
United States
Asuragen, Inc.
2150 Woodward Street
Austin, Texas 78744
+1 512-681-5200

Supplier:
European Union
Bio-Techne (DRD)
19 Rue Louis Delourmel
35230, Noyal Châtillon sur Seiche
+33.2.99.35.19.36

1.4 Emergency telephone number:

European Union
Bio-Techne (DRD)
+33.2.99.35.19.36 (Normal business hours)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No. 1272/2008 (CLP): The substance or mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008 (CLP).
Hazard-determining components of labeling: None
Additional Information: None

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)
Hazard pictograms: None
Signal Word: None
Hazard statements: None
Precautionary statements: None

2.3 Other hazards: None known

SECTION 3: Composition/information on ingredients

3.1 Substance: Not applicable.

3.2 Mixture:

Identification	EU REACH Registration No.	Name	Classification according to Regulation (EC) No. 1272/2008 (CLP)	Weight %

CAS number: 56-81-5 EC number: 200-289-5	–	Glycerol	Not classified;	45-55
CAS number: 7447-40-7 EC number: 231-211-8	–	Potassium chloride	Not classified;	<1
CAS number: 9016-45-9 EC number: 500-024-6	–	NP-40	Skin Irrit. 2; H315 Aquatic Chronic 2; H411 Eye Irrit. 2; H319 Acute Tox. 4 (Oral); H302	<1
CAS number: 3483-12-3 EC number: 222-468-7	–	1,4-disulfanylbutane-2,3-diol	Skin Irrit. 2; H315 STOT SE 3 (RI); H335 Acute Tox. 4 (Oral); H302 Eye Irrit. 2; H319	<0.1

Additional information: None
Full Text of H and EUH statements: See section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

Show this Safety Data Sheet to the doctor in attendance.

Following inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. If respiratory symptoms develop or persist, seek medical advice/attention.

Following skin contact:

Wash affected area with plenty of soap and water. Remove contaminated clothing and launder before reuse. If skin irritation develops or persists, seek medical advice/attention.

Following eye contact:

Immediately rinse eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. If eye irritation develops or persists, seek medical advice/attention.

Following ingestion:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Self-Protection of the first aider:

Take precautions to ensure your own safety before attempting rescue. Wear appropriate safety eyewear, gloves, protective clothing and respiratory protection to prevent exposure. See Section 8 of this SDS for personal protective equipment recommendations.

4.2 Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

No significant acute effects/symptoms.

Delayed symptoms and effects:
No significant delayed effects/symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment:
Not determined or not available.

Notes for the doctor:
Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

Unsuitable extinguishing media:
Do not use water jet.

5.2 Special hazards arising from the substance or mixture:
Thermal decomposition may produce irritating/toxic fumes/gases.

5.3 Advice for firefighters

Personal protection equipment:
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

Special precautions:
Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

6.2 Environmental precautions:
Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up:
Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

6.4 Reference to other sections:
For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:
Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

7.2 Conditions for safe storage, including any incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

7.3 Specific end use(s):

Refer to Section 1 (Recommended Use).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
Bulgaria	Potassium chloride	7447-40-7	8-Hour TWA: 5 mg/m³
Latvia	Potassium chloride	7447-40-7	8-Hour TWA: 5 mg/m³
Lithuania	Potassium chloride	7447-40-7	8-Hour TWA: 5 mg/m³
	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³ (Dust: inhalable fraction)
	Glycerol	56-81-5	8-Hour TWA: 5 mg/m³ (Dust: respirable fraction)
Croatia	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³
Czech Republic	Glycerol	56-81-5	Ceiling Limit: 15 mg/m³
	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³
Estonia	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³
Germany (MAK)	Glycerol	56-81-5	8-Hour TWA: 200 mg/m³ (inhalable fraction)
	Glycerol	56-81-5	Peak Exposure Limit Value: 400 mg/m³ (inhalable fraction)
Greece	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³
Poland	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³ (inhalable fraction)
Portugal	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³ (mist)
Slovakia	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³
Spain	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³ (mist)
United Kingdom	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³ (mist)
	Glycerol	56-81-5	15-Minute STEL: 30 mg/m³ (mist)
Slovenia	Glycerol	56-81-5	8-Hour TWA: 200 mg/m³ (inhalable fraction)
	Glycerol	56-81-5	15-Minute STEL: 400 mg/m³ (inhalable fraction)
Belgium	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³ (mist)

Country (Legal Basis)	Substance	Identifier	Permissible concentration
France	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³ (aerosol)
Germany (TRGS 900)	Glycerol	56-81-5	8-Hour TWA: 200 mg/m³ (inhalable fraction)
Ireland	Glycerol	56-81-5	8-Hour TWA: 10 mg/m³ (mist)
Finland	Glycerol	56-81-5	8-Hour TWA: 20 mg/m³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

Ingredient Name: Potassium chloride
CAS #: 7447-40-7

Workers - Systemic Effects	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	5320 mg/m³
	Acute - Dermal	910 mg/kg bw/day
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	1064 mg/m³
	Chronic - Dermal	303 mg/kg bw/day
Workers - Local Effects	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	Not determined or not applicable.
	Acute - Dermal	Not determined or not applicable.
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	Not determined or not applicable.
	Chronic - Dermal	Not determined or not applicable.
General Population - Systemic Effects	Acute - Oral	455 mg/kg bw/day
	Acute - Inhalation	1365 mg/m³
	Acute - Dermal	910 mg/kg bw/day
	Chronic - Oral	91 mg/kg bw/day
	Chronic - Inhalation	273 mg/m³
	Chronic - Dermal	182 mg/kg bw/day
General Population - Local Effect	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	Not determined or not applicable.
	Acute - Dermal	Not determined or not applicable.
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	Not determined or not applicable.
	Chronic - Dermal	Not determined or not applicable.

Ingredient Name: Glycerol
CAS #: 56-81-5

Workers - Systemic Effects	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	No hazard identified
	Acute - Dermal	No hazard identified
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	No hazard identified
	Chronic - Dermal	No hazard identified
Workers - Local Effects	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	No hazard identified
	Acute - Dermal	No hazard identified
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	No hazard identified
	Chronic - Dermal	No hazard identified
General Population - Systemic Effects	Acute - Oral	No hazard identified
	Acute - Inhalation	No hazard identified
	Acute - Dermal	No hazard identified
	Chronic - Oral	No hazard identified
	Chronic - Inhalation	No hazard identified
	Chronic - Dermal	No hazard identified
General Population - Local Effect	Acute - Oral	Not determined or not applicable.
	Acute - Inhalation	No hazard identified
	Acute - Dermal	No hazard identified
	Chronic - Oral	Not determined or not applicable.
	Chronic - Inhalation	No hazard identified
	Chronic - Dermal	No hazard identified

Predicted No Effect Concentration (PNEC):
Ingredient Name: Potassium chloride
CAS #: 7447-40-7

Environmental Protection Target	PNEC
Fresh water	0.1 mg/L
Freshwater sediments	Not determined or not available.
Marine water	0.1 mg/L
Marine sediments	Not determined or not available.
Microorganisms in sewage treatment	10 mg/L
Soil (agricultural)	Not determined or not available.
Air	Not determined or not available.
Oral (Secondary Poisoning)	No exposure expected

Ingredient Name: Glycerol
CAS #: 56-81-5

Environmental Protection Target	PNEC
Fresh water	No hazard identified
Freshwater sediments	No hazard identified
Marine water	No hazard identified
Marine sediments	No hazard identified
Microorganisms in sewage treatment	No hazard identified

Soil (agricultural)	No hazard identified
Air	No hazard identified
Oral (Secondary Poisoning)	No exposure expected

Information on monitoring procedures:

Not determined or not applicable.

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal protection equipment

Eye and face protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and body protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

General hygienic measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Product (substance / mixture) related measures to prevent exposure:	Not determined or not applicable.
Instruction measures to prevent exposure:	Not determined or not applicable.
Organisational measures to prevent exposure:	Not determined or not applicable.
Technical measures to prevent exposure:	Not determined or not applicable.

Risk management measures to control exposure:

Not determined or not applicable.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Color	Clear
Odor/Odor threshold	Odorless

pH	7.4 - 8.5
Melting point/freezing point	0°C
Initial boiling point/range	100°C
Flash point (closed cup)	Not determined or not available.
Flammability	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	23 hPa at 20°C
Relative vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Soluble in water
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Particle characteristics	Not determined or not available.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosives	No data available/Not applicable
Flammable gases	No data available/Not applicable
Aerosols	No data available/Not applicable
Oxidizing gases	No data available/Not applicable
Gases under pressure	No data available/Not applicable
Flammable liquids	No data available/Not applicable
Flammable solids	No data available/Not applicable
Self-reactive substances and mixtures	No data available/Not applicable
Pyrophoric liquids	No data available/Not applicable
Pyrophoric solids	No data available/Not applicable
Self-heating substances and mixtures	No data available/Not applicable
Substances and mixtures, which emit flammable gases in contact with water	No data available/Not applicable
Oxidizing liquids	No data available/Not applicable
Oxidizing solids	No data available/Not applicable
Organic peroxides	No data available/Not applicable
Corrosive to metals	No data available/Not applicable
Desensitized explosives	No data available/Not applicable

9.2.2 Other safety characteristics

None.

SECTION 10: Stability and reactivity

10.1 Reactivity:
Not reactive under recommended handling and storage conditions.

10.2 Chemical stability:
Stable under recommended handling and storage conditions.

10.3 Possibility of hazardous reactions:
Hazardous reactions are not anticipated under recommended conditions of handling and storage.

10.4 Conditions to avoid:
Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

10.5 Incompatible materials:
Strong oxidizing agents

10.6 Hazardous decomposition products:
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Potassium chloride	oral	LD50 Rat: 3020 mg/kg
1,4-disulfanylbutane-2,3-diol	oral	LD50 Rat: >=300 - <2000 mg/kg
NP-40	oral	LD50 Rat: 1310 mg/kg
	dermal	LD50 Rabbit: 2000 mg/kg
Glycerol	oral	LD50 Rat: 27,200 mg/kg
	inhalation	LC50 Rat: > 5850 mg/m³ (4 hr [Aerosol])

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data:
No data available.

Substance data:

Name	Result
1,4-disulfanylbutane-2,3-diol	Causes skin irritation.
NP-40	Causes skin irritation.

Serious eye damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data:
No data available.

Substance data:

Name	Result
1,4-disulfanylbutane-2,3-diol	Causes serious eye irritation.
NP-40	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data:
No data available.
Substance data: No data available.

Carcinogenicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.
International Agency for Research on Cancer (IARC): None of the ingredients are listed.

Germ cell mutagenicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Reproductive Toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data:
No data available.
Substance data: No data available.

Specific target organ toxicity (single exposure)
Assessment: Based on available data, the classification criteria are not met.
Product data:
No data available.
Substance data:

Name	Result
1,4-disulfanylbutane-2,3-diol	May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)
Assessment: Based on available data, the classification criteria are not met.
Product data:
No data available.
Substance data: No data available.

Aspiration toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data:
No data available.
Substance data: No data available.

Endocrine disrupting properties:
Assessment: Based on available data, the classification criteria are not met.
Product data:
No data available.
Substance data:

Name	Result
NP-40	The substance is officially recognized in the EU as Endocrine Disrupting.

Information on likely routes of exposure:
No data available.
Symptoms related to the physical, chemical and toxicological characteristics:
See section 4 of this SDS.

11.2 Information on other hazards

Other information:
No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available

Substance data:

Name	Result
Potassium chloride	Fish LC50 Pimephales promelas: 880 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: >= 440 - <= 880 mg/L (48 hr [immobilization])
	Aquatic Plants EC50 Desmodesmus subspicatus: > 100 mg/L (72 hr [growth rate])
1,4-disulfanylbutane-2,3-diol	Aquatic Invertebrates EC50 Daphnia magna: 34.8 mg/L (48 hr [mobility])
	Aquatic Plants EC50 Pseudokirchneriella subcapitata: 24.3 mg/L (72 hr [growth rate])
NP-40	Aquatic Invertebrates EC50 Daphnia magna: 14 mg/L (48 hr [immobility])
	Fish LC50 Lepomis macrochirus: 1.3 mg/L (96 hr)
	Aquatic Plants EC50 Raphidocelis subcapitata: 12 mg/L (96 hr [biomass])
Glycerol	Fish LC50 Oncorhynchus mykiss: 54,000 mg/L (96 hr [mobility])
	Aquatic Invertebrates EC50 Daphnia magna: 1955 mg/L (48 hr [mobility])

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available

Substance data: No data available

12.2 Persistence and degradability

Product data: No data available

Substance data:

Name	Result
Potassium chloride	Persistence assessment based on biodegradability is not relevant for inorganic compounds such as this substance.
1,4-disulfanylbutane-2,3-diol	The substance is not readily biodegradable. It did not reach 60% biodegradation in the CO2 evolution test within the 10-day window.
NP-40	The substance is readily biodegradable. 98-99% degradation in water, measured by die-away test conducted on a mixture of polyethylene glycol linear nonylphenyl ethers with an inoculum obtained from the Arakawa River, Horikiri, Japan, after 30 days.
Glycerol	The substance is readily biodegradable. 94% degradation in water, measured by TOC removal, after 1 day.

12.3 Bioaccumulative potential

Product data: No data available

Substance data:

Name	Result
Potassium chloride	Bioaccumulation assessment using a classic BCF assessment is not considered relevant for inorganic compounds such as this substance.
1,4-disulfanylbutane-2,3-diol	Log Kow: -0.48 (Due to the low log Kow accumulation in organisms is not to be expected).
NP-40	The substance has the potential to bioaccumulate (log Pow= 3.7 at 25 °C).
Glycerol	The substance is not expected to bioaccumulate (log Kow <=3).

12.4 Mobility in soil

Product data: No data available

Substance data:

Name	Result
Potassium chloride	Mobility in soil assessment based on KOC/Kd values are not relevant for inorganic compounds such as this substance.

12.5 Persistent, bioaccumulative and toxic (PBT) or very persistent, very bioaccumulative (vPvB) properties

PBT Properties

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available

Substance data:

Potassium chloride	PBT assessment does not apply to inorganic compounds such as this substance.
NP-40	The substance is PBT.
Glycerol	The substance is not PBT.

vPvB Properties

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available

Substance data:

Potassium chloride	vPvB assessment does not apply to inorganic compounds such as this substance.
NP-40	The substance is vPvB.
Glycerol	The substance is not vPvB.

12.6 Persistent, mobile and toxic (PMT) or very persistent, very mobile (vPvM) properties

PMT Properties

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available

Substance data: No data available

vPvM Properties

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available

Substance data: No data available

12.7 Endocrine disrupting properties

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available

Substance data:

Name	Result
NP-40	The substance is considered to have Endocrine Disrupting Properties.

12.8 Other adverse effects: No data available.

12.9 Hazard to the ozone layer

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available
Substance data: No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:
Dispose of in accordance with all applicable local, regional, state and federal regulations.

Waste codes / waste designations according to LoW: Not determined or not available.

13.1.2 Waste treatment-relevant information: Not determined or not available.

13.1.3 Sewage disposal-relevant information: Not determined or not available.

13.1.4 Other disposal recommendations: It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information

International Carriage of Dangerous Goods by Road/Rail (ADR/RID)

UN number or ID number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Carriage of Dangerous Goods by Inland Waterways (ADN)

UN number or ID number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number or ID number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number or ID number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

Maritime Transport in Bulk according to IMO Instruments

Bulk Name	None
Ship type	None
Pollution category	None
IMO hazard class	None
Environmental hazards	None
Material hazardous only in bulk	None
Cargo Group	None

SECTION 15: Regulatory information

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

European regulations

Inventory listing (EINECS):

7447-40-7	Potassium chloride	Listed
3483-12-3	1,4-disulfanylbutane-2,3-diol	Listed
9016-45-9	NP-40	Not Listed
56-81-5	Glycerol	Listed

REACH SVHC candidate list:

7447-40-7	Potassium chloride	Not Listed
3483-12-3	1,4-disulfanylbutane-2,3-diol	Not Listed
9016-45-9	NP-40	Listed
56-81-5	Glycerol	Not Listed

REACH SVHC Authorizations:

Ingredient Name	CAS	Listing	Conditions of use
NP-40	9016-45-9	Listed	Not determined or not available

REACH Restriction:

7447-40-7	Potassium chloride	Not Listed
3483-12-3	1,4-disulfanylbutane-2,3-diol	Not Listed
9016-45-9	NP-40	Listed
56-81-5	Glycerol	Not Listed

Water hazard class (WGK) (Product): Not determined.

Water hazard class (WGK) (Substance):

Ingredient Name	CAS	Class
Potassium chloride	7447-40-7	Water hazard class 1: slightly hazardous to water
1,4-disulfanylbutane-2,3-diol	3483-12-3	Water hazard class 2: obviously hazardous to water
NP-40	9016-45-9	Water hazard class 3: highly hazardous to water
Glycerol	56-81-5	Water hazard class 1: slightly hazardous to water

Other regulations

Germany TA Luft: None of the ingredients are listed.

Additional information: Not determined.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Abbreviations and Acronyms: None

Summary of classification(s) in section 3:

Skin Irrit. 2	Skin irritation, category 2
Aquatic Chronic 2	Chronic aquatic hazard, category 2
Eye Irrit. 2	Eye Irritation, category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral), category 4
STOT SE 3 (RI)	Specific target organ toxicity - single exposure, category 3, respiratory tract irritation

Summary of hazard statements in section 3:

H315	Causes skin irritation
H411	Toxic to aquatic life with long lasting effects
H319	Causes serious eye irritation
H302	Harmful if swallowed
H335	May cause respiratory irritation

Disclaimer:

This product has been classified in accordance with EC No. 1272/2008 (CLP), as amended by Commission Regulation (EU) 2019/521 and Commission Delegated Regulation (EU) 2020/217, and Commission Delegated Regulation (EU) 2023/707, and EC No. 1907/2006 (REACH), as amended by Commission Regulation (EU) 2020/878. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation, and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

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End of Safety Data Sheet