

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Lysis Buffer JS-3

Version 1.0

Effective Date: 2020-12-01

Print Date: 2020-12-29

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

1.1 Product identifier

Trade name: Lysis Buffer JS-3

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

Use of the Substance/Mixture: Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company: Katsura Biological Corp.
7F, No. 657-6, Zhongzheng Rd., Xinzhuang Dist.,
New Taipei City 24256, Taiwan (R.O.C.)
Tel: +886-2-29027255
Fax: +886-2-29027266

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

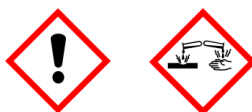
Classification (Regulation (EC) No 1272/2008)

Acute Toxicity, Category 4	H332
Acute Toxicity, Category 4	H312
Acute Toxicity, Category 4	H302
Skin Corrosion, Category 1C	H314
Aquatic Chronic, Category 3	H412

2.2 Label elements

Labelling (Regulation (EC) No 1272/2008)

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H332: Harmful if inhaled.
H312: Harmful in contact with skin.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H412: Harmful to aquatic life with long lasting effect.

Precautionary statements:

Prevention:

P260: Do not breathe mist/vapors/spray.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/ face protection.

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Hazardous components to be
listed on the label:

Guanidine thiocyanate

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition / Information on ingredients

3.1 Substances

Not applicable, product is a mixture.

3.2 Mixtures

Hazardous component(s)

Chemical Name	CAS-No. / EC-No.	Classification	Concentration (% w/w)
Guanidine thiocyanate	593-84-0 209-812-1	Acute Tox. 4; H332 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1C; H314 Aquatic Chronic 3; H412	≥ 30 - < 50

SECTION 4: First aid and measures

4.1 Description of first aid measures

General advice:

Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.

If inhaled:

If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
If symptoms persist, call a physician.

In case of eye contact:

Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed:

If accidentally swallowed obtain immediate medical attention.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms:

No information available

Effects:

Causes severe skin burns and eye damage.

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In case of inhalation, irritation may occur.
If swallowed, irritation may occur.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: No information available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Special hazards during firefighting: Exposure to decomposition products may be a hazard to health.
Do not allow run-off from firefighting to enter drains or water courses.

Hazardous combustion products: Hydrogen sulfide, Ammonia, Carbon oxides, Hydrocyanic acid (HCN).

5.3 Advice for firefighters

Special protective equipment: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear appropriate personal protective equipment. Avoid contact with skin and eyes.
Provide adequate ventilation. Avoid breathing mist/vapor. Keep unauthorized and unprotected persons away.

6.2 Environmental precautions

Environmental precautions: Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Wipe up small spills with absorbent material (e.g. cloth, fleece). Then rinse the spillage site with plenty of water. Larger spills are to be absorbed with sand, earth or similar materials. Keep in suitable, closed containers for disposal according to local/national regulations.

6.4 Reference to other sections

See section 8 and 13 for further information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Do not breathe vapor/mist and avoid contact with skin and eyes. Provide adequate ventilation. Avoid exposure - obtain special instructions before use.

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For personal protection see section 8.

Do not eat, drink or smoke when using this product. Keep this product away from food and out of reach of children and pets. Remove work clothes and protective equipment before meals. Wash hands after handling the product. Remove contaminated clothing. Keep away from heat/sparks/open flames/hot surfaces. Keep container tightly closed when not in use. Use only in well ventilated areas. Avoid electrostatic charging.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas: Keep container tightly closed in a dry and well-ventilated place.
Store at room temperature (15 - 25°C / 59 - 77°F).
Do not store together with/near to acids.

7.3 Specific end uses(s)

Specific use(s): Laboratory chemicals.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment:

Eye protection: Tightly fitting safety goggles. Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection material: Nitrile rubber (recommendation: Camatril 730), break through time > 480 min., glove thickness 0,4 mm.

Skin and body protection: Appropriate protective clothing.

Respiratory protection: Do not inhale gases, vapors, aerosols or dust - use respiratory protection equipment. Dust protection mask in accordance with EN 149 FFP2.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Liquid

Color: Colorless

Odor: No data available

pH: ca. 6.5

Melting point/range: No data available

Boiling point/range: No data available

Flash point: No data available

Evaporation rate: No data available

Burning rate: No data available

Explosive limits: No data available

Vapor pressure: No data available

Relative vapor density: No data available

Density: 1.2 – 1.3 g/cm³ (at 25 °C)

Water solubility: Completely miscible

Solubility in other solvents: No data available

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Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available

9.2 Other information No information available

SECTION 10: Stability and reactivity

10.1 Reactivity No decomposition if stored and applied as directed.

10.2 Chemical stability No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions Stable under recommended storage conditions.
Hazardous decomposition products formed under fire conditions.
Thiocyanates can develop poisonous gas in contact with strong acids.
Keep away from oxidizing agents, and acidic or alkaline products.

10.4 Conditions to avoid No data available

10.5 Incompatible materials No data available

10.6 Hazardous decomposition products No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: Harmful if inhaled, swallowed, or comes in contact with skin.

Product

Acute oral toxicity: No data available
Acute inhalation toxicity: No data available
Acute dermal toxicity: No data available

Component: Guanidine thiocyanate

Acute oral toxicity: Oral LD₅₀ (rat) = 593 mg/kg
Acute inhalation toxicity: LC₅₀ (rat) > 0.853 mg/l
Exposure time 4 hours
Acute dermal toxicity: Dermal LD₅₀ (rat) > 2000 mg/kg

Skin corrosion/irritation: Causes severe skin burns.

Product

Component: Guanidine thiocyanate May cause dermal corrosion, at exposure > 1 hour (rabbit).

Eye damage/eye irritation: Causes severe eye damage.

Product

Component: Guanidine thiocyanate May cause severe eye irritation.

Respiratory or skin sensitization: Not classified

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Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive Toxicity:	Not classified
STOT – single exposure:	Not classified
STOT – repeated exposure:	Not classified
Aspiration toxicity:	Not classified
Further information:	No information available

SECTION 12: Ecological information

12.1 Toxicity Harmful to aquatic life with long lasting effect.

Product

Toxicity to fish:	No data available
Toxicity to algae:	No data available
Toxicity to bacteria:	No data available

Component: Guanidine thiocyanate

Toxicity to fish:	LC ₅₀ (Poecilia reticulata [Guppy]) = 89.1 mg/l Exposure time 96 hours
Toxicity to algae:	EC ₅₀ (Desmodesmus subspicatus [Green algae]) = 130 mg/l Exposure time 72 hours
Toxicity to aquatic invertebrates:	EC ₅₀ (Daphnia magna [Green algae]) = 42.4 mg/l Exposure time 48 hours
Toxicity to bacteria:	EC ₁₀ (Photobacterium phosphoreum): est. 200 mg/l Exposure time 10 days (calculation method according to OECD302)

12.2 Persistence and degradability

Product

No data available

Component: Guanidine thiocyanate

Inherently biodegradable (OECD guideline 302B study).

12.3 Bio-accumulative potential No data available

12.4 Mobility in soil No data available

12.5 Result of PBT / vPvB assessment: Product contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects No data available

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product: Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations.
The product should not be allowed to enter drains, water courses or soil.

Contaminated packaging: Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

	ADR/RID/ADN	IMDG/IMO	ICAO-TI/IATA	49 CFR
14.1 UN number	UN1760	UN1760	UN1760	UN1760
14.2 Proper shipping name	Corrosive Liquid, N.O.S.	Corrosive Liquid, N.O.S.	Corrosive Liquid, N.O.S.	Corrosive Liquid, N.O.S.
14.3 Technical name	Guanidine thiocyanate	Guanidine thiocyanate	Guanidine thiocyanate	Guanidine thiocyanate
14.4 Transport hazard class(es) / code(s)	8 / C9	8	8	8
14.5 Packing group	III	III	III	III
14.6 Label(s)	8	8	8	8
14.7 Other information	Hazard Ident. No.: 80 Tunnel: E	EmS: F-A, S-B	-	ERG code: 154 Marine pollutant: No

14.8 Special precautions for user No data available

14.9 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH – Annex XIV Not applicable

REACH – Candidate list of substances of very high concern for authorization Not applicable

REACH – Annex XVII Subject to Annex XVII, No.3

Directive 2012/18/EU Not applicable

EPCRA – SARA 311/312 Acute health hazard

EPCRA – SARA 302 Not applicable

EPCRA – SARA 313 Not applicable

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US State Regulations,
California, Prop. 65

Not applicable

TSCA list

No substances are subject to a Significant New Use Rule.
No substances are subject to TSCA 12(b) export notification requirements.

15.2 Chemical safety assessment

No information available

SECTION 16: Other information

Full text of H-Statements

H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H314: Causes severe skin burns and eye damage.
H332: Harmful if inhaled.
H412: Harmful to aquatic life with long lasting effect.

Full text of other abbreviations

Acute Tox.: Acute toxicity
Skin Corr.: Skin corrosion
STOT: Specific target organ toxicity

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; ECHA - European Chemicals Agency; EC-Number - European Community number; EC_x - Concentration associated with x% response; EmS - Emergency Schedule; EN - European Norm; FFP - Filtering Facepiece Particles; GHS - Globally Harmonized System; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organization for Standardization; LC₅₀ - Lethal Concentration to 50 % of a test population; LD₅₀ - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; N.O.S. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Cooperation and Development; PBT - Persistent, Bio-accumulative and Toxic substance; REACH - Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bio-accumulative; TSCA - Toxic Substances Control Act (United States); TCSI - Taiwan Chemical Substance Inventory.

The information provided in this Material 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.

Buffer W1B

Version 1.0

Effective Date: 2020-12-01

Print Date: 2020-12-28

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

1.1 Product identifier

Trade name: Buffer W1B

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

Use of the Substance/Mixture: Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company: Katsura Biological Corp.
7F, No. 657-6, Zhongzheng Rd., Xinzhuang Dist.,
New Taipei City 24256, Taiwan (R.O.C.)
Tel: +886-2-29027255
Fax: +886-2-29027266

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (Regulation (EC) No 1272/2008)

Acute Toxicity, Category 4	H302
Skin Irritation, Category 2	H315
Eye Irritation, Category 2	H319

2.2 Label elements

Labelling (Regulation (EC) No 1272/2008)

Hazard pictograms:



Signal word: Warning

Hazard statements: H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary statements: **Prevention:**
P264: Wash thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/ face protection

Hazardous components to be listed on the label: not applicable

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

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SECTION 3: Composition / Information on ingredients

3.1 Substances Not applicable, product is a mixture.

3.2 Mixtures

Hazardous component(s)

Chemical Name	CAS-No. / EC-No.	Classification	Concentration (% w/w)
Guanidine hydrochloride	50-01-1 200-002-3	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H139	≥ 10 - < 30

SECTION 4: First aid and measures

4.1 Description of first aid measures

General advice: Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.

If inhaled: If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
If symptoms persist, call a physician.

In case of eye contact: Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: If accidentally swallowed obtain immediate medical attention.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No information available

Effects: Causes skin irritation and severe eye damage.
In case of inhalation, irritation may occur.
If swallowed, irritation may occur.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: No information available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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5.2 Special hazards arising from the substance or mixture

Special hazards during firefighting: Exposure to decomposition products may be a hazard to health.

Hazardous combustion products: Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas.

5.3 Advice for firefighters

Special protective equipment: Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid breathing mist/vapor. Keep unauthorized and unprotected persons away.

6.2 Environmental precautions

Environmental precautions: Prevent entry to sewers and public waters. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Wipe up small spills with absorbent material (e.g. cloth, fleece). Then rinse the spillage site with plenty of water. Larger spills are to be absorbed with sand, earth or similar materials. Keep in suitable, closed containers for disposal according to local/national regulations.

6.4 Reference to other sections

See section 8 and 13 for further information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Do not breath vapor/mist and avoid contact with skin and eyes. Provide adequate ventilation. Avoid exposure - obtain special instructions before use.
For personal protection see section 8.
Do not eat, drink or smoke when using this product. Keep this product away from food and out of reach of children and pets. Remove work clothes and protective equipment before meals. Wash hands after handling the product. Remove contaminated clothing. Keep away from heat/sparks/open flames/hot surfaces. Keep container tightly closed when not in use. Use only in well ventilated areas. Avoid electrostatic charging.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas: Keep container tightly closed in a dry and well-ventilated place.
Store at room temperature (15 - 25°C / 59 - 77°F).

7.3 Specific end uses(s)

Specific use(s): Laboratory chemicals.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters	Contains no substances with occupational exposure limit values.
8.2 Exposure controls	
Personal protective equipment:	
Eye protection:	Wear safety glasses.
Hand protection material:	Wear chemical-resistant protective gloves (EN 374), material nitrile rubber recommendation: Camatril 730), break through time > 480 min., glove thickness 0,4 mm.
Skin and body protection:	Appropriate protective clothing.
Respiratory protection:	Do not inhale gases, vapors, aerosols or dust - use respiratory protection equipment. Dust protection mask in accordance with EN 149 FFP2.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Color:	Colorless
Odor:	No data available
pH:	ca. 6
Melting point/range:	No data available
Boiling point/range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Burning rate:	No data available
Explosive limits:	No data available
Vapor pressure:	No data available
Relative vapor density:	No data available
Density:	0.9 – 1.0 g/cm ³ (at 25 °C)
Water solubility:	Completely miscible
Solubility in other solvents:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available

9.2 Other information	No information available
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SECTION 10: Stability and reactivity

10.1 Reactivity	No decomposition if stored and applied as directed.
10.2 Chemical stability	No decomposition if stored and applied as directed.
10.3 Possibility of hazardous reactions	Stable under recommended storage conditions. Hazardous decomposition products formed under fire conditions. Keep away from oxidizing agents, and acidic or alkaline products.

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- 10.4 Conditions to avoid** No data available
- 10.5 Incompatible materials** No data available
- 10.6 Hazardous decomposition products** No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity:** Harmful if swallowed or inhaled.
- Product**
- Acute oral toxicity: No data available
- Acute inhalation toxicity: No data available
- Acute dermal toxicity: No data available
- Component: Guanidine hydrochloride**
- Acute oral toxicity: Oral LD₅₀ (rat) = 773.6 mg/kg
- Acute inhalation toxicity: LC₅₀ (rat) = 3181 mg/l
Exposure time 4 hours
- Acute dermal toxicity: Dermal LD₅₀ (rat) > 2000 mg/kg
- Skin corrosion/irritation:** Irritating to the skin.
- Product** No data available
- Component: Guanidine hydrochloride** May cause erythema and other skin irritations (rabbit).
- Eye damage/eye irritation:** Irritating to the eye.
- Product** No data available
- Component: Guanidine hydrochloride** May cause severe eye irritation.
- Respiratory or skin sensitization:** Not classified
- Germ cell mutagenicity:** Not classified
- Carcinogenicity:** Not classified
- Reproductive Toxicity:** Not classified
- STOT – single exposure:** Not classified
- STOT – repeated exposure:** Not classified
- Aspiration toxicity:** Not classified
- Further information:** No information available

SECTION 12: Ecological information

- 12.1 Toxicity** No data available

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12.2 Persistence and degradability	No data available
12.3 Bio-accumulative potential	No data available
12.4 Mobility in soil	No data available
12.5 Result of PBT / vPvB assessment:	Product contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.
12.6 Other adverse effects	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product:	Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations.
Contaminated packaging:	Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

Product is not regulated as dangerous good.

	ADR/RID/ADN	IMDG/IMO	ICAO-TI/IATA	49 CFR
14.1 UN number	-	-	-	-
14.2 Proper shipping name	-	-	-	-
14.3 Technical name	-	-	-	-
14.4 Transport hazard class(es) / code(s)	-	-	-	-
14.5 Packing group	-	-	-	-
14.6 Label(s)	-	-	-	-
14.7 Other information	-	-	-	-

14.8 Special precautions for user No data available

14.9 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH – Annex XIV Not applicable

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REACH – Candidate list of substances of very high concern for authorization	Not applicable
REACH – Annex XVII	Not applicable
Directive 2012/18/EU	Not applicable
EPCRA – SARA 311/312	Not applicable
EPCRA – SARA 302	Not applicable
EPCRA – SARA 313	Not applicable
US State Regulations, California, Prop. 65	Not applicable
TSCA list	No substances are subject to a Significant New Use Rule. No substances are subject to TSCA 12(b) export notification requirements.

15.2 Chemical safety assessment No information available

SECTION 16: Other information

Full text of H-Statements

H302:	Harmful if swallowed.
H315:	Causes skin irritation.
H319:	Causes serious eye irritation.

Full text of other abbreviations

Acute Tox.:	Acute toxicity
Skin Irrit.:	Skin irritation
Eye Irrit.:	Eye irritation
STOT:	Specific target organ toxicity

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; ECHA - European Chemicals Agency; EC-Number - European Community number; EmS – Emergency Schedule; EN – European Norm; FFP – Filtering Facepiece Particles; GHS – Globally Harmonized System; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organization for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; NIOSH – National Institute for Occupational Safety and Health; N.O.S. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD – Organization for Economic Cooperation and Development; PBT - Persistent, Bio-accumulative and Toxic substance; REACH - Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS – Safety Data Sheet; UN - United Nations; vPvB – Very Persistent and Very Bio-accumulative; TSCA - Toxic Substances Control Act (United States); TCSI - Taiwan Chemical Substance Inventory.

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