

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name: MEBSTAIN Apoptosis TUNEL Kit Direct

Product code: 8445

Components: FITC-dUTP

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

Relevant identified uses of the product: Research Use Only

1.3 Details of the supplier of the safety data sheet

Manufacturer and Supplier (Asia): Medical & Biological Laboratories (MBL) Co., Ltd.

Address: 1018-1 Terasawaoka, Ina, Nagano 396-0002, Japan

Division: SDS Support

Telephone number: +81-265-76-1777 (Monday to Friday, 9 AM to 5 PM JST)

e-mail address: sds-support@mbi.co.jp

Supplier: MBL International Corporation.

Address: 15A Constitution Way, Woburn, MA 01801, USA

Telephone number: +1-800-200-5459, option 3.

e-mail address: tech@mbintl.com

Contact person: Technical Service

Emergency telephone number: +81-265-76-1777 (Monday to Friday, 9 AM to 5 PM JST)

2. Hazards identification

GHS classification and label elements of the product

2.1 Classification of the substance or mixture

Classification according to Hazard Communication Standard -2012 (29 CFR 1910.1200)

Not classified/Classification not possible

2.2 Label elements

Labelling according to Hazard Communication Standard -2012 (29 CFR 1910.1200)

No GHS label element

No Signal word

3. Composition/information on ingredients

Mixture/Substance selection:

3.2 Mixture

Ingredient name	CAS No.	Content (%)	ECNO	HAZCODE_EU
Glycerin	56-81-5	50-60	200-289-5	-

4. First-aid measures

4.1 Descriptions of first-aid measures

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair)

Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

5.2 Specific hazards arising from the substance or mixture

Specific hazards arising from the substance or mixture is not available.

5.3 Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

6. Accidental release measures

6.1 Personnel precautions, protective equipment and emergency procedures

Wear proper protective equipment.

6.2 Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

6.3 Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

6.4 Reference to other sections

Refer to section 13

7. Handling and storage

7.1 Precautions for safe handling

Preventive measures

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety measures data is not available.

Any incompatibilities data is not available.

Advice on general occupational hygiene

Do not get in eyes, on skin, or on clothing.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

7.2 Storage

Conditions for safe storage

Keep container tightly closed.

Keep cool. Protect from sunlight.

Container and packaging materials for safe handling data is not available.

7.3 Specific end use(s)

Research use only.

8. Exposure controls/personal protection

8.1 Control parameters

Adopted value

Adopted value in ACGIH is not available.

OSHA-PEL

(Glycerin)

TWA: 15mg/m³ (Total dust)

TWA: 5mg/m³ (Respirable fraction)

NIOSH-REL

(Glycerin)

See Appendix D

8.2 Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Washing facilities should be available.

Individual protection measures

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

Skin and body protection

Wear protective clothing.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state: Liquid

Color: Colorless

Odor data is not available.

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH: Neutral

Kinematic viscosity data is not available.

Solubility:

Water solubility: miscible

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density data is not available.

Oxidising properties data is not available.

No Particle characteristics data is not available.

9.2 Other information

Other information is not available.

10. Stability and Reactivity

10.1 Reactivity

Reactivity data is not available.

10.2 Chemical stability

Stable under normal storage/handling conditions.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions data is not available.

10.4 Conditions to avoid

Conditions to avoid data is not available.

10.5 Incompatible materials

Incompatible materials data is not available.

10.6 Hazardous decomposition products

Hazardous decomposition products data is not available.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity data is not available.

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Teratogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

STOT-single exposure data is not available.

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

12. Ecological Information

12.1 Ecotoxicity

Ecotoxicity data is not available.

Water solubility

(Glycerin)

miscible (ICSC, 2006)

12.2 Persistence and degradability

Persistence and degradability data is not available.

12.3 Bioaccumulative potential

(Glycerin)

log Pow=-1.76 (ICSC, 2006)

12.4 Mobility in soil

Mobility in soil data is not available.

12.7 Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

Contaminated packing

Dispose of container after using the contents completely.

14. Transport Information

UN No., UN CLASS

14.1 UN No. or ID No.: Not applicable

14.2 UN Proper Shipping Name: Not applicable

14.3 Class or division (Transport hazard class): Not applicable

14.4 Packing group: Not applicable

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

14.5 Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no): no

14.6 Special precautions for user

Special precautions for user is not applicable.

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

Chemicals listed in TSCA Inventory

Glycerin

Other regulatory information

California Proposition 65 – Carcinogens & Reproductive Toxicity (CRT)

Not listed.

REACH 1907/2006 EC –Annex XIV– list of substance subject to authorization.

Not ingredients listed.

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

16. Other information

The products is not applicable to GHS classifications.

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN

IMDG Code, 2018 Edition (Incorporating Amendment 39–18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2020 TLVs and BEIs. (ACGIH)

Supplier's data/information

Hazard Communication Standard – 2012 (29 CFR 1910.1200)

Revision information

Issue date: 01/30/2016

Most modern edition: 11/26/2021

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Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name: MEBSTAIN Apoptosis TUNEL Kit Direct

Product code: 8445

Components: Proteinase K (PK), TB buffer (x10)

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

Relevant identified uses of the product: Research Use Only

1.3 Details of the supplier of the safety data sheet

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GHS classification and label elements of the product

2.1 Classification of the substance or mixture

Classification according to Hazard Communication Standard – 2012 (29 CFR 1910.1200)

Not classified/ Classification not possible.

2.2 Label elements

Labelling according to Hazard Communication Standard – 2012 (29 CFR 1910.1200)

No GHS label element

No Signal word

3. Composition/information on ingredients

Mixture/Substance selection:

3.2 Mixture

Ingredient name	CAS No.	Content (%)	ECNO	HAZCODE_EU
Non hazardous substance	–	–	–	–

4. First-aid measures

4.1 Descriptions of first-aid measures

General measures

Call a POISON CENTER or doctor/physician if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair)

Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

5.2 Specific hazards arising from the substance or mixture

Specific hazards arising from the substance or mixture is not available.

5.3 Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

6. Accidental release measures

6.1 Personnel precautions, protective equipment and emergency procedures

Wear proper protective equipment.

6.2 Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

6.3 Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

7. Handling and storage

7.1 Precautions for safe handling

Preventive measures

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety measures data is not available.

Any incompatibilities data is not available.

Advice on general occupational hygiene

Do not get in eyes, on skin, or on clothing.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

7.2 Storage

Conditions for safe storage

Keep container tightly closed.

Keep cool. Protect from sunlight.

Container and packaging materials for safe handling data is not available.

7.3 Specific end use(s)

Research use only.

8. Exposure controls/personal protection

8.1 Control parameters

Adopted value

Adopted value in ACGIH is not available.

8.2 Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Washing facilities should be available.

Individual protection measures

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

Skin and body protection

Wear protective clothing.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state: Liquid

Color: Colorless

Odor data is not available.

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water data is not available.

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density data is not available.

No Particle characteristics data is not available.

10. Stability and Reactivity

10.1 Reactivity

Reactivity data is not available.

10.2 Chemical stability

Stable under normal storage/handling conditions.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions data is not available.

10.4 Conditions to avoid

Conditions to avoid data is not available.

10.5 Incompatible materials

Incompatible materials data is not available.

10.6 Hazardous decomposition products

Hazardous decomposition products data is not available.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity data is not available.

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Teratogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

STOT–single exposure data is not available.

STOT–repeated exposure data is not available.

Aspiration hazard data is not available.

12. Ecological Information**12.1 Ecotoxicity**

Ecotoxicity data is not available.

12.2 Persistence and degradability

Persistence and degradability data is not available.

12.3 Bioaccumulative potential

Bioaccumulative potential data is not available.

12.4 Mobility in soil

Mobility in soil data is not available.

12.7 Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

Contaminated packing

Dispose of container after using the contents completely.

14. Transport Information**UN No., UN CLASS**

14.1 UN No. or ID No.: Not applicable

14.2 UN Proper Shipping Name: Not applicable

14.3 Class or division (Transport hazard class) : Not applicable

14.4 Packing group: Not applicable

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

14.5 Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no): no

14.6 Special precautions for user

Special precautions for user is not applicable.

15. Regulatory Information

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

Chemicals listed in TSCA Inventory

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN
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Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name: MEBSTAIN Apoptosis TUNEL Kit Direct

Product code: 8445

Components: TdT buffer II

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

Relevant identified uses of the product: Research Use Only

1.3 Details of the supplier of the safety data sheet

Manufacturer and Supplier (Asia): Medical & Biological Laboratories (MBL) Co., Ltd.

Address: 1018-1 Terasawaoka, Ina, Nagano 396-0002, Japan

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GHS classification and label elements of the product

2.1 Classification of the substance or mixture

Classification according to Hazard Communication Standard – 2012 (29 CFR 1910.1200)

HEALTH HAZARDS

Carcinogenicity: Category 1A

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Long-term): Category 3

2.2 Label elements

Labelling according to Hazard Communication Standard – 2012 (29 CFR 1910.1200)



Signal word: Danger

HAZARD STATEMENT

H350 May cause cancer

H412 Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

P280 Use personal protective equipment as required.

Response

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Disposal

P501 Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

3.2 Mixture

Ingredient name	CAS No.	Content (%)	ECNO	HAZCODE_EU
cacodylic acid (Potassium cacodylate)	75-60-5 (21416-85-3)	1.8	200-883-4	Acute Tox. 3, H331; Acute Tox. 3, H301; Aquatic Acute 1, H400; Aquatic Chronic 1, H410
Cobalt (II) chloride	7646-79-9	<0.04	231-589-4	Carc. 1B, H350; Muta. 2, H341; Repr. 1B, H360; Acute Tox. 4, H302; Resp. Sens. 1, H334; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410

4. First-aid measures

4.1 Descriptions of first-aid measures

General measures

IF exposed or concerned: Get medical advice/attention.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair)

Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Specific information on symptom and effect are unknown.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

5.3 Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

6. Accidental release measures

6.1 Personnel precautions, protective equipment and emergency procedures

Wear proper protective equipment.

6.2 Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

6.3 Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

6.4 Reference to other sections

Refer to section 8

7. Handling and storage

7.1 Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Any incompatibilities data is not available.

Advice on general occupational hygiene

Do not get in eyes, on skin, or on clothing.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

7.2 Storage

Conditions for safe storage

Keep container tightly closed.

Keep cool. Protect from sunlight.

Container and packaging materials for safe handling data is not available.

7.3 Specific end use(s)

Research Use Only.

8. Exposure controls/personal protection

8.1 Control parameters

Adopted value

(Cobalt (II) chloride)

ACGIH(2018) TWA: 0.02mg-Co/m³(l) (Pulm func changes)

Notation

(Cobalt (II) chloride)

DSEN; RSEN

8.2 Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Washing facilities should be available.

Individual protection measures

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

Skin and body protection

Wear protective clothing.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state: Liquid

Color: Colorless

Odor data is not available.

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH: Neutral

Kinematic viscosity data is not available.

Solubility:

Solubility in water data is not available.

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density data is not available.

No Particle characteristics data is not available.

10. Stability and Reactivity

10.1 Reactivity

Reactivity data is not available.

10.2 Chemical stability

Stable under normal storage/handling conditions.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions data is not available.

10.4 Conditions to avoid

Conditions to avoid data is not available.

10.5 Incompatible materials

Incompatible materials data is not available.

10.6 Hazardous decomposition products

Hazardous decomposition products data is not available.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity data is not available.

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

(cacodylic acid (Potassium cacodylate))

IARC-Gr.2B: Possibly carcinogenic to humans

(Cobalt (II) chloride)

IARC-Gr.2B: Possibly carcinogenic to humans

(Cobalt (II) chloride)

ACGIH-A3(2018): Confirmed Animal Carcinogen with Unknown Relevance to Humans

(Cobalt (II) chloride)

EU-Category 1B; Substances presumed to have carcinogenic potential for humans

Teratogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

STOT–single exposure data is not available.

STOT–repeated exposure data is not available.

Aspiration hazard data is not available.

12. Ecological Information**12.1 Ecotoxicity****Aquatic toxicity**

Harmful to aquatic life with long lasting effects

Water solubility

(Cobalt (II) chloride)

53 g/100 ml (20°C) (ICSC, 2013)

12.2 Persistence and degradability

Persistence and degradability data is not available.

12.3 Bioaccumulative potential

(Cobalt (II) chloride)

log Pow=0.85 (ICSC, 2013)

12.4 Mobility in soil

Mobility in soil data is not available.

12.7 Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

13.1 Waste treatment methods

Avoid release to the environment (– if this is not the intended use).

Dispose of contents/container in accordance with local/national regulation.

Contaminated packing

Dispose of container after using the contents completely.

14. Transport Information**UN No., UN CLASS**

14.1 UN No. or ID No.: Not applicable

14.2 UN Proper Shipping Name: Not applicable

14.3 Class or division (Transport hazard class): Not applicable

14.4 Packing group: Not applicable

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

14.5 Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no): no

MARPOL Annex V – Prevention of pollution by garbage discharge

Carcinogenicity: cat.1, 1A, 1B

Cobalt (II) chloride

14.6 Special precautions for user

Special precautions for user is not applicable.

15. Regulatory Information

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

Chemicals listed in TSCA Inventory

cacodylic acid (Potassium cacodylate); Cobalt (II) chloride

Superfund Amendments and Reauthorizations Act (SARA), Title III

SARA 313 (TRI) Reporting Year 2020

cacodylic acid (Potassium cacodylate) (N020)

California proposition 65

Cancer

cacodylic acid (Potassium cacodylate)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

16. Other information

GHS classification and labelling

Carc. 1A: H350 May cause cancer

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects

Reference Book

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EU REGULATION (EC) No. 1272/2008 (CLP), amended by COMMISSION REGULATION (EU) 2019/521

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1.1 Product identifier:

Product name: MEBSTAIN Apoptosis TUNEL Kit Direct

Product code: 8445

Components: TdT

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

Relevant identified uses of the product: Research Use Only

1.3 Details of the supplier of the safety data sheet

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Telephone number: +1-800-200-5459, option 3.

e-mail address: tech@mbintl.com/

Contact person: Technical Service

Emergency telephone number: +81-265-76-1777 (Monday to Friday, 9 AM to 5 PM JST)

2. Hazards identification

GHS classification and label elements of the product

2.1 Classification of the substance or mixture

Classification according to Hazard Communication Standard – 2012 (29 CFR 1910.1200)

HEALTH HAZARDS

Carcinogenicity: Category 1A

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Long-term): Category 2

2.2 Label elements

Labelling according to Hazard Communication Standard – 2012 (29 CFR 1910.1200)



Signal word: Danger

HAZARD STATEMENT

H350 May cause cancer

H411 Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

P280 Use personal protective equipment as required.

Response

P391 Collect spillage.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Disposal

P501 Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

3.2 Mixture

Ingredient name	CAS No.	Content (%)	ECNO	HAZCODE_EU
cacodylic acid (Potassium cacodylate)	75-60-5 (21416-85-3)	1.6	200-883-4	Acute Tox. 3, H331; Acute Tox. 3, H301; Aquatic Acute 1, H400; Aquatic Chronic 1, H410
Cacodylic acid, sodium salt	124-65-2	1.4	204-708-2	–
2-Mercaptoethanol	60-24-2	0.05	200-464-6	–
Glycerin	56-81-5	50 – 60	200-289-5	–

4. First-aid measures

4.1 Descriptions of first-aid measures

General measures

IF exposed or concerned: Get medical advice/attention.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair)

Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED

Rinse mouth.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

6. Accidental release measures

6.1 Personnel precautions, protective equipment and emergency procedures

Wear proper protective equipment.

6.2 Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

6.3 Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Preventive measures for secondary accident

Collect spillage.

6.4 Reference to other sections

Refer to section 8

7. Handling and storage**7.1 Precautions for safe handling**

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Any incompatibilities data is not available.

Advice on general occupational hygiene

Do not get in eyes, on skin, or on clothing.

7.2 Storage

Conditions for safe storage

Keep container tightly closed.

Keep cool. Protect from sunlight.

Container and packaging materials for safe handling data is not available.

7.3 Specific end use(s)

Research Use Only.

8. Exposure controls/personal protection**8.1 Control parameters**

Adopted value

Adopted value in ACGIH is not available.

OSHA-PEL

(Glycerin)

TWA: 15mg/m³ (Total dust)TWA: 5mg/m³ (Respirable fraction)

NIOSH-REL

(Glycerin)

See Appendix D

8.2 Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Individual protection measures

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

Skin and body protection

Wear protective clothing.

9. Physical and Chemical Properties**9.1 Information on basic physical and chemical properties**

Physical state: Liquid

Color: Colorless

Odor data is not available.

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH: Neutral

Kinematic viscosity data is not available.

Solubility:

Solubility in water data is not available.

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density data is not available.

No Particle characteristics data is not available.

9.2 Other information

Other information is not available.

10. Stability and Reactivity

10.1 Reactivity

Reactivity data is not available.

10.2 Chemical stability

Chemical stability data is not available.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions data is not available.

10.4 Conditions to avoid

Conditions to avoid data is not available.

10.5 Incompatible materials

Incompatible materials data is not available.

10.6 Hazardous decomposition products

Hazardous decomposition products data is not available.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity data is not available.

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

(cacodylic acid (Potassium cacodylate))

IARC-Gr.2B: Possibly carcinogenic to humans

Teratogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

STOT-single exposure data is not available.

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

11.2 Information on other hazards

Data on the preparation itself is not available.

12. Ecological Information

12.1 Ecotoxicity

Aquatic toxicity

Toxic to aquatic life with long lasting effects

Water solubility

(Glycerin)

miscible (ICSC, 2006)

(2-Mercaptoethanol)

miscible (ICSC, 1997)

12.2 Persistence and degradability

(2-Mercaptoethanol)

Not degrade rapidly (SIDS, 2005)

12.3 Bioaccumulative potential

(Glycerin)

log Pow=-1.76 (ICSC, 2006)

(2-Mercaptoethanol)

log Pow=-0.3 (ICSC, 1997)

12.4 Mobility in soil

Mobility in soil data is not available.

12.5 Results of PBT and vPvB assessment

PBT and/or vPvB assessment data is not available.

12.6 Endocrine disrupting properties

Endocrine disrupting properties is not available.

12.7 Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

13.1 Waste treatment methods

Avoid release to the environment (- if this is not the intended use).

Dispose of contents/container in accordance with local/national regulation.

Contaminated packing

Dispose of container after using the contents completely.

14. Transport Information**UN No., UN CLASS**

14.1 UN No. or ID No.: Not applicable

14.2 UN Proper Shipping Name: Not applicable

14.3 Class or division (Transport hazard class) : Not applicable

14.4 Packing group: Not applicable

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

14.5 Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no): yes

14.6 Special precautions for user

Special precautions for user is not applicable.

15. Regulatory Information

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

Chemicals listed in TSCA Inventory

Glycerin; 2-Mercaptoethanol; cacodylic acid(Potassium cacodylate); Cacodylic acid, sodium salt

Superfund Amendments and Reauthorizations Act (SARA), Title III

SARA 313 (TRI) Reporting Year 2020

cacodylic acid (Potassium cacodylate) (N020)

California proposition 65

Cancer

cacodylic acid (Potassium cacodylate)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

16. Other information

GHS classification and labelling

Carc. 1A: H350 May cause cancer

Aquatic Acute 2: H401 Toxic to aquatic life

Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN

IMDG Code, 2018 Edition (Incorporating Amendment 39–18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

EU REGULATION (EC) No. 1272/2008 (CLP), amended by COMMISSION REGULATION (EU) 2019/521

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2020 TLVs and BEIs. (ACGIH)

Supplier's data/information

Hazard Communication Standard – 2012 (29 CFR 1910.1200)

Revision information

Issue date: 01/30/2016

Revision date: 11/26/2021

General Disclaimer

This information is provided without warranty. The information is believed to be correct.

This information should be used to make an independent determination of the methods to safeguard workers and the environment.

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.