

SAFETY DATA SHEET

Date Revised: Nov 23, 2021

SECTION 1: Product and Company Identification

Product Name: TUNEL Equilibration Buffer

Catalog Number: T6039S,T6039L

Manufacturer/Supplier:

UElandy (Suzhou) Co., Ltd.

Room 302-1, Building 1, No.18 Chunyao Road, Caohu Industrial Park, Xiangcheng District, Suzhou, P.R. China

Phone: 86-512-69571710, mailbox:service@uelandy.com

Web: <http://www.uelandy.com>

SECTION 2: Hazards identification

Classification according to Regulation (EC) No 1272/2008[CLP]

Acute toxicity 4, Acute toxicity 2, Carcinogen 1A, Aquatic acute 1, Aquatic chronic 1

Acute Toxicity. 4, Skin Sensitizer. 1, Respiratory Sensitizer 1, Mutagenicity 2, Carcinogenicity 1B, Reproductive Toxicity 1B

Classification according to Directive 1999/45/EC

None

Labeling according to Regulation (EC) No 1272/2008[CLP]

Hazard pictogram

GHS06 Skull and Crossbones, GHS08 Health Hazard, GHS09 Environment

Signal word Danger

Hazard statements

H301 Toxic if swallowed, H302 Harmful if swallowed, H317 May cause an allergic skin reaction, H330 Fatal if inhaled, H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled, H341 Suspected of causing genetic defects, H350 May cause cancer, H360 May damage fertility or the unborn child, H400 Very toxic to aquatic life, H410 Very toxic to aquatic life with long lasting effects

Precautionary statements

P264 Wash skin thoroughly after handling, P270 Do not eat, drink or smoke when using this product, P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician, P330 Rinse mouth, P405 Store locked up, P501 Dispose of contents/container to hazardous chemical waste, P260 Do not breathe dust/fume/gas/mist/vapours/spray, P271 Use only in a well-ventilated area, P284 Wear respiratory protection, P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing, P310 Immediately call a POISON CENTER or doctor/physician, P403+P233 Store in a well-ventilated place and keep container tightly closed, P201 Obtain special instructions before use, P202 Do not handle until all safety precautions have been read and understood, P281 Use personal protective equipment as required, P308+P313 IF exposed or concerned: Get medical advice/attention, P272 Contaminated work clothing should not be allowed out of the workplace, P273 Avoid release to the environment, P280 Wear protective gloves/protective clothing/eye protection/face protection, P391 Collect spillage. Hazardous to the aquatic environment. P302+P352 IF ON SKIN: wash with plenty of soap and water, P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse, P285 In case of inadequate ventilation wear respiratory protection, P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing, P342 + P311 IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician, P405 Store locked up.

HMIS Classification

Health hazard: 3

US EVERBRIGHT

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 3

Fire: 0

Reactivity Hazard: 0

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

SECTION 4: First aid measures

General advice

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

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: Firefighting measures

Suitable extinguishing media

Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid inhalation of vapor or mist.

Avoid direct contact with substance.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Store at -20°C.

SECTION 8: Exposure controls/personal protection

Components with workplace control parameters

Substance Cobalt dichloride

CAS no. 7646-79-9

| country | Austria | Belgium | Denmark | European Union | France | Germany |
|-------------------------|---------|---------|---------|----------------|--------|---------|
| Limit value,8hours | - | - | - | - | - | - |
| Limit value, short term | - | - | - | - | - | - |

| country | Hungary | Italy | Poland | Spain | Sweden | Netherlands | United Kingdom |
|-------------------------|---------|-------|--------|-------|-----------|-------------|----------------|
| Limit value,8hours | - | - | - | - | 0.02mg/m3 | - | - |
| Limit value, short term | - | - | - | - | - | - | - |

| country | United Kingdom | USA-NIOSH | USA-OSHA | Australia | Canada | Japan | South Korea |
|-------------------------|----------------|-----------|----------|-----------|--------|-------|-------------|
| Limit value,8hours | - | - | - | - | - | - | - |
| Limit value, short term | - | - | - | - | - | - | - |

Personal protective equipment

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

| | |
|------------------------------|----------------------------|
| Chemical Name | TUNEL Equilibration Buffer |
| Appearance | Liquid |
| Odor | No data available |
| Odor threshold | No data available |
| pH | 6.6 |
| Melting point/freezing point | No data available |
| Boiling point | No data available |
| Flash point | No data available |
| Evaporate rate | No data available |
| Flammability | No data available |
| Explosive limits | No data available |
| Vapor pressure | No data available |

| | |
|---------------------------------------|-------------------|
| Vapor density | No data available |
| Relative density | No data available |
| Solubility | Water soluble |
| Partition coefficient:n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

SECTION 10: Stability and reactivity

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Oxidizing agents, Alkali metals, Strong bases

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sodium oxides, Arsenic oxides Hydrogen chloride gas, Cobalt/cobalt oxides

Other decomposition products - no data available

SECTION 11: Toxicological information

Acute toxicity

Oral LD50 Sodium cacodylate : rat - 644 mg/kg; cobalt dichloride: 418 mg/kg

Inhalation LC50 None

Dermal LD50 None

Other information on acute toxicity no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitization no data available

Germ cell mutagenicity Sodium cacodylate, cobalt dichloride: Laboratory experiments have shown mutagenic effects.

Carcinogenicity

Carcinogenicity - mouse – Oral (Dimethylarsinic acid)

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. (Dimethylarsinic acid)

IARC: 1 - Group 1: Carcinogenic to humans (Dimethylarsinic acid); IARC: 2B - Group 2B: Possibly carcinogenic to humans (Cobalt dichloride)

2B - Group 2B: Possibly carcinogenic to humans (Dimethylarsinic acid), 2B - Group 2B: Possibly carcinogenic to humans (Cobalt dichloride)

IARC: 1 - Group 1: Carcinogenic to humans (Dimethylarsinic acid)

2B - Group 2B: Possibly carcinogenic to humans (Dimethylarsinic acid)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen

US EVERBRIGHT

by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

Reproductive toxicity - mouse - Oral

Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Physical. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. (Dimethylarsinic acid)

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Paternal Effects: Testes, epididymis, sperm duct. Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females) (Cobalt dichloride).

May damage fertility.

Teratogenicity

May cause congenital malformation in the fetus. (Dimethylarsinic acid)

Specific target organ toxicity - single exposure (Globally Harmonized System)

Inhalation - May cause respiratory irritation. (Dimethylarsinic acid)

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation. (Dimethylarsinic acid)

Ingestion Toxic if swallowed. (Dimethylarsinic acid)

Skin May be harmful if absorbed through skin. Causes skin irritation. (Dimethylarsinic acid)

Eyes Causes eye irritation. (Dimethylarsinic acid)

Aggravated

Medical Condition

Cacodylic acid may be partially reduced to inorganic arsenic in the body, Exposure to arsenic compounds can cause:, burning, dry nose, dry mouth, Muscle cramps/spasms,

May cause irritation of the Gastrointestinal tract, Vomiting, Nausea, Diarrhea, Shock, Death.

Signs and Symptoms of Exposure

Drowsiness, Tremors, Convulsions, dry mouth, metallic taste, loss of appetite, respiratory difficulties, garlic- like breath odor, garlic-like perspiration (Dimethylarsinic acid). Blood disorders, Cough, Shortness of breath, Headache, Nausea, Vomiting (Cobalt dichloride).

Synergistic effects

no data available

Additional Information

RTECS: CH7525000 (Dimethylarsinic acid)

RTECS: GF9800000 (Cobalt dichloride)

SECTION 12: Ecological information

Toxicity Sodium cacodylate: Toxicity to fish LC50 - Lepomis macrochirus - > 180 mg/l - 96 h Cobalt dichloride: Toxicity to fish LC50 - Cyprinus carpio (Carp) - 0.33 mg/l - 96 h Cobalt dichloride: Toxicity to daphnia and other aquatic invertebrates mortality NOEC - Daphnia - < 0.05 mg/l - 7 d EC50 - Daphnia magna (Water flea) - 1.1 -1.6 mg/l - 48 h

US EVERBRIGHT

Cobalt dichloride: Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae)- 0.52 mg/l - 96 h

Persistence and degradability Sodium cacodylate: Bioaccumulation Gambusia affinis (Mosquito fish) -32 d Bioconcentration factor (BCF): 21

Biodegradation no information available

Mobility in soil no information available

Results of PBT and vPvB assessment no information available

Other adverse effects Very toxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Additional information no information available

SECTION 13: Disposal considerations

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

SECTION 14: Transport information

IATA, IMDG, DOT (US) not dangerous good during transportation

UN number none

UN proper shipping name none

Transport hazard class none

Packing group none

Environmental hazards none

Special precaution for user none

SECTION 15: Regulatory information

US Federal Regulations

US Toxic Substances Control Act (TSCA): Not listed

SARA 302: No chemicals were found.

SARA 313: No chemicals were found.

SARA 311/312 Hazards : No chemicals were found.

SECTION 16: Other information

Reason for revision SDS sections updated

Version no. 1

For research use only. Not for use in diagnostic procedures.

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. UELandy (Suzhou) shall not be held liable for any damage resulting from handling or contact with the above product.

SAFETY DATA SHEET

Date Revised: Nov 23, 2021

SECTION 1: Product and Company Identification

Product Name: YF@555 TUNEL Reaction Buffer

Catalog Number: T6039S,T6039L

Manufacturer/Supplier:

UElandy (Suzhou) Co., Ltd.

Room 302-1, Building 1, No.18 Chunyao Road, Caohu Industrial Park, Xiangcheng District, Suzhou, P.R. China

Phone: 86-512-69571710, mailbox:service@uelandy.com

Web: <http://www.uelandy.com>

SECTION 2: Hazards identification

Classification according to Regulation (EC) No 1272/2008[CLP]

Acute toxicity 4, Acute toxicity 2, Carcinogen 1A, Aquatic acute 1, Aquatic chronic 1

Acute Toxicity. 4, Skin Sensitizer. 1, Respiratory Sensitizer 1, Mutagenicity 2, Carcinogenicity 1B, Reproductive Toxicity 1B

Classification according to Directive 1999/45/EC

None

Labeling according to Regulation (EC) No 1272/2008[CLP]

Hazard pictogram

GHS06 Skull and Crossbones, GHS08 Health Hazard, GHS09 Environment

Signal word Danger

Hazard statements

H301 Toxic if swallowed, H302 Harmful if swallowed, H317 May cause an allergic skin reaction, H330 Fatal if inhaled, H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled, H341 Suspected of causing genetic defects, H350 May cause cancer, H360 May damage fertility or the unborn child, H400 Very toxic to aquatic life, H410 Very toxic to aquatic life with long lasting effects

Precautionary statements

P264 Wash skin thoroughly after handling, P270 Do not eat, drink or smoke when using this product, P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician, P330 Rinse mouth, P405 Store locked up, P501 Dispose of contents/container to hazardous chemical waste, P260 Do not breathe dust/fume/gas/mist/vapours/spray, P271 Use only in a well-ventilated area, P284 Wear respiratory protection, P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing, P310 Immediately call a POISON CENTER or doctor/physician, P403+P233 Store in a well-ventilated place and keep container tightly closed, P201 Obtain special instructions before use, P202 Do not handle until all safety precautions have been read and understood, P281 Use personal protective equipment as required, P308+P313 IF exposed or concerned: Get medical advice/attention, P272 Contaminated work clothing should not be allowed out of the workplace, P273 Avoid release to the environment, P280 Wear protective gloves/protective clothing/eye protection/face protection, P391 Collect spillage. Hazardous to the aquatic environment. P302+P352 IF ON SKIN: wash with plenty of soap and water, P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse, P285 In case of inadequate ventilation wear respiratory protection, P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing, P342 + P311 IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician, P405 Store locked up.

HMIS Classification

Health hazard: 3

US EVERBRIGHT

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 3

Fire: 0

Reactivity Hazard: 0

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

SECTION 4: First aid measures

General advice

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

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: Firefighting measures

Suitable extinguishing media

Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid inhalation of vapor or mist.

Avoid direct contact with substance.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Store at -20°C.

SECTION 8: Exposure controls/personal protection

Components with workplace control parameters

Substance Cobalt dichloride

CAS no. 7646-79-9

| country | Austria | Belgium | Denmark | European Union | France | Germany |
|-------------------------|---------|---------|---------|----------------|--------|---------|
| Limit value,8hours | - | - | - | - | - | - |
| Limit value, short term | - | - | - | - | - | - |

| country | Hungary | Italy | Poland | Spain | Sweden | Netherlands | United Kingdom |
|-------------------------|---------|-------|--------|-------|-----------|-------------|----------------|
| Limit value,8hours | - | - | - | - | 0.02mg/m3 | - | - |
| Limit value, short term | - | - | - | - | - | - | - |

| country | United Kingdom | USA-NIOSH | USA-OSHA | Australia | Canada | Japan | South Korea |
|-------------------------|----------------|-----------|----------|-----------|--------|-------|-------------|
| Limit value,8hours | - | - | - | - | - | - | - |
| Limit value, short term | - | - | - | - | - | - | - |

Personal protective equipment

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

| | |
|------------------------------|------------------------------|
| Chemical Name | YF®555 TUNEL Reaction Buffer |
| Appearance | Liquid |
| Odor | No data available |
| Odor threshold | No data available |
| pH | 6.6 |
| Melting point/freezing point | No data available |
| Boiling point | No data available |
| Flash point | No data available |
| Evaporate rate | No data available |
| Flammability | No data available |
| Explosive limits | No data available |
| Vapor pressure | No data available |

| | |
|---------------------------------------|-------------------|
| Vapor density | No data available |
| Relative density | No data available |
| Solubility | Water soluble |
| Partition coefficient:n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

SECTION 10: Stability and reactivity

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Oxidizing agents, Alkali metals, Strong bases

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sodium oxides, Arsenic oxides Hydrogen chloride gas, Cobalt/cobalt oxides

Other decomposition products - no data available

SECTION 11: Toxicological information

Acute toxicity

Oral LD50 Sodium cacodylate : rat - 644 mg/kg; cobalt dichloride: 418 mg/kg

Inhalation LC50 None

Dermal LD50 None

Other information on acute toxicity no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitization no data available

Germ cell mutagenicity Sodium cacodylate, cobalt dichloride: Laboratory experiments have shown mutagenic effects.

Carcinogenicity

Carcinogenicity - mouse – Oral (Dimethylarsinic acid)

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. (Dimethylarsinic acid)

IARC: 1 - Group 1: Carcinogenic to humans (Dimethylarsinic acid); IARC: 2B - Group 2B: Possibly carcinogenic to humans (Cobalt dichloride)

2B - Group 2B: Possibly carcinogenic to humans (Dimethylarsinic acid), 2B - Group 2B: Possibly carcinogenic to humans (Cobalt dichloride)

IARC: 1 - Group 1: Carcinogenic to humans (Dimethylarsinic acid)

2B - Group 2B: Possibly carcinogenic to humans (Dimethylarsinic acid)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen

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by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

Reproductive toxicity - mouse - Oral

Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Physical. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. (Dimethylarsinic acid)

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Paternal Effects: Testes, epididymis, sperm duct. Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females) (Cobalt dichloride).

May damage fertility.

Teratogenicity

May cause congenital malformation in the fetus. (Dimethylarsinic acid)

Specific target organ toxicity - single exposure (Globally Harmonized System)

Inhalation - May cause respiratory irritation. (Dimethylarsinic acid)

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation. (Dimethylarsinic acid)

Ingestion Toxic if swallowed. (Dimethylarsinic acid)

Skin May be harmful if absorbed through skin. Causes skin irritation. (Dimethylarsinic acid)

Eyes Causes eye irritation. (Dimethylarsinic acid)

Aggravated

Medical Condition

Cacodylic acid may be partially reduced to inorganic arsenic in the body, Exposure to arsenic compounds can cause:, burning, dry nose, dry mouth, Muscle cramps/spasms,

May cause irritation of the Gastrointestinal tract, Vomiting, Nausea, Diarrhea, Shock, Death.

Signs and Symptoms of Exposure

Drowsiness, Tremors, Convulsions, dry mouth, metallic taste, loss of appetite, respiratory difficulties, garlic- like breath odor, garlic-like perspiration (Dimethylarsinic acid). Blood disorders, Cough, Shortness of breath, Headache, Nausea, Vomiting (Cobalt dichloride).

Synergistic effects

no data available

Additional Information

RTECS: CH7525000 (Dimethylarsinic acid)

RTECS: GF9800000 (Cobalt dichloride)

SECTION 12: Ecological information

Toxicity Sodium cacodylate: Toxicity to fish LC50 - Lepomis macrochirus - > 180 mg/l - 96 h Cobalt dichloride: Toxicity to fish LC50 - Cyprinus carpio (Carp) - 0.33 mg/l - 96 h Cobalt dichloride: Toxicity to daphnia and other aquatic invertebrates mortality NOEC - Daphnia - < 0.05 mg/l - 7 d EC50 - Daphnia magna (Water flea) - 1.1 -1.6 mg/l - 48 h

US EVERBRIGHT

Cobalt dichloride: Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae)- 0.52 mg/l - 96 h

Persistence and degradability Sodium cacodylate: Bioaccumulation Gambusia affinis (Mosquito fish) -32 d Bioconcentration factor (BCF): 21

Biodegradation no information available

Mobility in soil no information available

Results of PBT and vPvB assessment no information available

Other adverse effects Very toxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Additional information no information available

SECTION 13: Disposal considerations

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

SECTION 14: Transport information

IATA, IMDG, DOT (US) not dangerous good during transportation

UN number none

UN proper shipping name none

Transport hazard class none

Packing group none

Environmental hazards none

Special precaution for user none

SECTION 15: Regulatory information

US Federal Regulations

US Toxic Substances Control Act (TSCA): Not listed

SARA 302: No chemicals were found.

SARA 313: No chemicals were found.

SARA 311/312 Hazards : No chemicals were found.

SECTION 16: Other information

Reason for revision SDS sections updated

Version no. 1

For research use only. Not for use in diagnostic procedures.

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. UELandy (Suzhou) shall not be held liable for any damage resulting from handling or contact with the above product.

SAFETY DATA SHEET

Date Revised: Nov 23, 2021

SECTION 1: Product and Company Identification

Product Name: TdT Enzyme

Catalog Number: T6039S,T6039L

Manufacturer/Supplier:

UElandy (Suzhou) Co., Ltd.

Room 302-1, Building 1, No.18 Chunyao Road, Caohu Industrial Park, Xiangcheng District, Suzhou, P.R. China

Phone: 86-512-69571710, mailbox:service@uelandy.com

Web: <http://www.uelandy.com>

SECTION 2: Hazards identification

Classification according to Regulation (EC) No 1272/2008[CLP]

None

Classification according to Directive 1999/45/EC

None

Labeling according to Regulation (EC) No 1272/2008[CLP]

Hazard pictogram

GHS07, GHS09, GHS05

Signal word Danger

Hazard statements

Hazard statements H302 Harmful if swallowed; H315 Causes skin irritation; H318 Causes serious eye damage; H411 Toxic to aquatic life with long lasting effects

Precautionary statements

P264 Wash hands thoroughly after handling, P270 Do not eat, drink or smoke when using this product, P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell, P330 Rinse mouth, P280 Wear protective gloves/protective clothing/eye protection/face protection, P302+P352 IF ON SKIN: wash with plenty of soap and water, P332+P313 IF SKIN irritation occurs: Get medical advice/attention, P362 Take off contaminated clothing and wash before reuse, P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing, P310 Immediately call a POISON CENTER or doctor/physician, P273 Avoid release to the environment, P501 Dispose of contents/container to hazardous waste

HMIS Classification (Triton X-100, glycerol)

Health hazard: 2

Flammability: 1

Physical hazards: 0

NFPA Rating

Health hazard: 2

Fire: 1

Reactivity Hazard: 0

US EVERBRIGHT

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

SECTION 4: First aid measures

General advice

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

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: Firefighting measures

Suitable extinguishing media

Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

Special protective equipment for firefighters

Wear self contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions

Avoid breathing vapors, mist or gas. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid inhalation of vapor or mist.

Avoid direct contact with substance.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Store at -20°C.

SECTION 8: Exposure controls/personal protection

Components with workplace control parameters

Substance Glycerol

CAS no. 56-81-5

| country | Austria | Belgium | Denmark | European Union | France | Germany |
|--------------------|---------|----------------------|---------|----------------|----------------------|--|
| Limit value,8hours | - | 10 mg/m ³ | - | - | 10 mg/m ³ | 50 mg/m ³ inhalable aerosol (DFG) |

US EVERBRIGHT

| | | | | | | |
|-------------------------|---|---|---|---|---|---|
| Limit value, short term | - | - | - | - | - | 100 mg/m ³ inhalable aerosol (DFG) |
|-------------------------|---|---|---|---|---|---|

| | | | | | | | |
|-------------------------|---------|-------|----------------------|----------------------|--------|-------------|----------------------|
| country | Hungary | Italy | Poland | Spain | Sweden | Netherlands | United Kingdom |
| Limit value, 8hours | - | - | 10 mg/m ³ | 10 mg/m ³ | - | - | 10 mg/m ³ |
| Limit value, short term | - | - | - | - | - | - | - |

| | | | | | | | |
|-------------------------|----------------------|---|--|----------------------|---|-------|----------------------|
| country | United Kingdom | USA-NIOSH | USA-OSHA | Australia | Canada | Japan | South Korea |
| Limit value, 8hours | 10 mg/m ³ | IDLH: Immediately Dangerous to Life or Health | (Vacated) TWA: 10 mg/m ³ (Vacated) TWA: 5 mg/m ³ TWA: 15 mg/m ³ TWA: 5 mg/m ³ | 10 mg/m ³ | Ontario TWA: 10 mg/m ³ Quebec TWA: 10 mg/m ³ | - | 10 mg/m ³ |
| Limit value, short term | - | - | - | - | - | - | - |

Personal protective equipment

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

| | |
|------------------------------|-------------------|
| Chemical Name | TdT Enzyme |
| Appearance | Liquid |
| Odor | No data available |
| Odor threshold | No data available |
| pH | 7.2 |
| Melting point/freezing point | No data available |
| Boiling point | No data available |
| Flash point | No data available |
| Evaporate rate | No data available |
| Flammability | No data available |
| Explosive limits | No data available |
| Vapor pressure | No data available |

| | |
|---------------------------------------|-------------------|
| Vapor density | No data available |
| Relative density | No data available |
| Solubility | Water soluble |
| Partition coefficient:n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

SECTION 10: Stability and reactivity

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

No data available

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - no data available

SECTION 11: Toxicological information

Acute toxicity

Oral LD50 Glycerol-rat - 12,600 mg/kg

Inhalation LC50 no data available

Dermal LD50 Glycerol-rabbit - > 10,000 mg/kg

Other information on acute toxicity no data available

Skin corrosion/irritation Glycerol-rabbit - Mild skin irritation - 24 h

Serious eye damage/eye irritation Glycerol-rabbit - Mild eye irritation - 24 h

Respiratory or skin sensitization no data available

Germ cell mutagenicity no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

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Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Additional Information

RTECS: TC6615500 (Potassium phosphate, monobasic), TS8050000 (Potassium chloride), MD0907700 (Triton X-100), MA8050000 (glycerol)

SECTION 12: Ecological information

Toxicity DMSO no information available

Persistence and degradability no information available

Biodegradation no information available

Mobility in soil no information available

Results of PBT and vPvB assessment no information available

Other adverse effects no information available

Additional information no information available

SECTION 13: Disposal considerations

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

SECTION 14: Transport information

IATA, IMDG, DOT (US) not dangerous good during transportation

UN number none

UN proper shipping name none

Transport hazard class none

Packing group none

Environmental hazards none

Special precaution for user none

SECTION 15: Regulatory information

US Federal Regulations

US Toxic Substances Control Act (TSCA): Not listed

SARA 302: No chemicals were found.

SARA 313: No chemicals were found.

SARA 311/312 Hazards : No chemicals were found.

SECTION 16: Other information

Reason for revision SDS sections updated

Version no. 1

For research use only. Not for use in diagnostic procedures.

US EVERBRIGHT

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. UElandy (Suzhou) shall not be held liable for any damage resulting from handling or contact with the above product.

SAFETY DATA SHEET

Date Revised: Nov 23, 2021

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

Product Name: Proteinase K

Catalog Number: T6039S,T6039L

Manufacturer/Supplier:

UElandy (Suzhou) Co., Ltd.

Room 302-1, Building 1, No.18 Chunyao Road, Caohu Industrial Park, Xiangcheng District, Suzhou, P.R. China

Phone: 86-512-69571710, mailbox:service@uelandy.com

Web: <http://www.uelandy.com>

SECTION 2: Hazards identification

GHS - Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Environmental hazards

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

| | |
|--------------|---|
| Health | 0 |
| Flammability | 0 |
| Reactivity | 0 |

US EVERBRIGHT

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures

| | |
|---|---|
| Skin contact | Rinse with plenty of water. Immediate medical attention is not required. |
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. |
| Ingestion | Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice. |
| Inhalation | Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary. |
| Notes to Physician | Treat symptomatically. |
| Most important symptoms and effects, both acute and delayed | Not Applicable |
| Indication of any immediate medical attention and special treatment needed | None. |

SECTION 5: Firefighting measures

| | |
|--|---|
| Extinguishing media | |
| Suitable extinguishing media | Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical. |
| Unsuitable extinguishing media | No information available. |
| Special hazards arising from the substance or mixture | Not known. |
| Advice for fire-fighters | Standard procedure for chemical fires. |

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Always wear recommended Personal Protective Equipment Use personal protection equipment
See Section 8 for more detail

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

US EVERBRIGHT

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance liquid

Odor No data available

pH 6-8

Melting point / melting range °C Mixture has not been tested °F Mixture has not been tested

Boiling point / boiling range °C Mixture has not been tested °F Mixture has not been tested

Flash point °C Mixture has not been tested °F Mixture has not been tested

Autoignition Temperature °C Mixture has not been tested °F Mixture has not been tested

Decomposition temperature °C Mixture has not been tested °F Mixture has not been tested

Evaporation rate No data available

Flammability (solid, gas) No data available

Upper explosion limit Mixture has not been tested

Lower explosion limit Mixture has not been tested

Vapor Pressure Mixture has not been tested

Relative density Mixture has not been tested

Specific gravity No data available

Solubility No data available

Partition coefficient: No data available

n-octanol/water

Explosive properties Mixture has not been tested

Other information

No data available.

SECTION 10: Stability and reactivity

Reactivity None known.

US EVERBRIGHT

| | |
|---|---|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous reaction has been reported |
| Conditions to avoid | No information available. |
| Incompatible materials | No dangerous reaction known under conditions of normal use. |
| Hazardous decomposition products | No data available. |

SECTION 11: Toxicological information

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

| | |
|---------------------------------|--|
| Irritation | Conclusive but not sufficient for classification |
| Corrosivity | Conclusive but not sufficient for classification |
| Sensitization | Conclusive but not sufficient for classification |
| STOT – Single Exposure | Conclusive but not sufficient for classification |
| STOT – Repeated Exposure | Conclusive but not sufficient for classification |
| Carcinogenicity | Conclusive but not sufficient for classification |
| Mutagenicity | Conclusive but not sufficient for classification |
| Reproductive toxicity | Conclusive but not sufficient for classification |
| Aspiration hazard | Conclusive but not sufficient for classification |

SECTION 12: Ecological information

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues.

This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not classified as dangerous in the meaning of transport regulations

UN number Not Applicable

UN proper shipping name Not Applicable

Transport hazard class(es) Not Applicable

Packing group Not Applicable

Environmental hazards

Not Applicable

Special precautions for user

US EVERBRIGHT

Not Applicable

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

Not Applicable.

SECTION 15: Regulatory information

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

SECTION 16: Other information

Reason for revision SDS sections updated

Version no. 1

For research use only. Not for use in diagnostic procedures.

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. UELandy (Suzhou) shall not be held liable for any damage resulting from handling or contact with the above product.

SAFETY DATA SHEET

Date Revised: Nov 23, 2021

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

Product Name: DNase I (2 U/μL)

Catalog Number: T6039S,T6039L

Manufacturer/Supplier:

UElandy (Suzhou) Co., Ltd.

Room 302-1, Building 1, No.18 Chunyao Road, Caohu Industrial Park, Xiangcheng District, Suzhou, P.R. China

Phone: 86-512-69571710, mailbox:service@uelandy.com

Web: <http://www.uelandy.com>

SECTION 2: Hazards identification

GHS - Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Environmental hazards

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

| | |
|--------------|---|
| Health | 0 |
| Flammability | 0 |
| Reactivity | 0 |

US EVERBRIGHT

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures

| | |
|---|---|
| Skin contact | Rinse with plenty of water. Immediate medical attention is not required. |
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. |
| Ingestion | Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice. |
| Inhalation | Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary. |
| Notes to Physician | Treat symptomatically. |
| Most important symptoms and effects, both acute and delayed | Not Applicable |
| Indication of any immediate medical attention and special treatment needed | None. |

SECTION 5: Firefighting measures

| | |
|--|---|
| Extinguishing media | |
| Suitable extinguishing media | Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical. |
| Unsuitable extinguishing media | No information available. |
| Special hazards arising from the substance or mixture | Not known. |
| Advice for fire-fighters | Standard procedure for chemical fires. |

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Always wear recommended Personal Protective Equipment Use personal protection equipment
See Section 8 for more detail

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

US EVERBRIGHT

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

| Chemical Name | OSHA PEL | OSHA PEL (Ceiling) | ACGIH OEL (TWA) | ACGIH OEL (STEL) |
|---------------|---|--------------------|-----------------|------------------|
| Glycerol | 15 mg/m ³ 5 mg/m ³ | None | None | None |

| Chemical Name | Brazil - OEL - TWAs (LTs) | Brazil - OEL - Ceilings | Brazil - OEL - Skin Designations |
|---------------|---------------------------|-------------------------|----------------------------------|
| Glycerol | None | None | None |

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | | |
|--------------------------------------|-------------------|------------|
| Appearance | liquid | |
| Color | No data | |
| Odor | No data available | |
| Molecular Weight | No data | |
| Melting point / melting range | °C No data | °F No data |
| Boiling point / boiling range | °C No data | °F No data |
| Flash point | °C No data | °F No data |
| Autoignition Temperature | °C No data | °F No data |
| Decomposition temperature | °C No data | °F No data |
| Evaporation rate | No data available | |
| Viscosity | No data | |
| Flammability (solid, gas) | No data available | |
| Upper explosion limit | No data | |
| Lower explosion limit | No data | |
| Vapor Pressure | No data | |
| Vapor density | No data | |
| Relative density | No data | |
| Specific gravity | No data available | |
| Solubility | No data available | |
| Partition coefficient: | No data available | |

US EVERBRIGHT

n-octanol/water

Explosive properties No data

Oxidizing properties No data

Particle characteristics No data

Other information

No data available.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions Hazardous reaction has been reported

Conditions to avoid No information available.

Incompatible materials No dangerous reaction known under conditions of normal use.

Hazardous decomposition products No data available.

SECTION 11: Toxicological information

Information on toxicological effects

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|---------------------|-------------------|-----------------------------|
| Glycerol | = 12600 mg/kg (Rat) | > 10 g/kg(Rabbit) | >570mg/m ³ (Rat) |

Principal Routes of Exposure

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification.

Skin corrosion/irritation Data are conclusive but insufficient for classification.

Serious eye damage/irritation Data are conclusive but insufficient for classification

Respiratory or skin sensitization Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification

(STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification

(STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

| Chemical Name | Toxicity to algae | Toxicity to daphnia and other aquatic invertebrates | Toxicity to fish | Microtox Data | log Pow |
|---------------|-------------------|---|-------------------|-------------------|-------------|
| Glycerol | No data available | No data available | No data available | No data available | logPow-1.76 |

Mobility in soil No information available.

US EVERBRIGHT

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number Not Applicable

UN proper shipping name Not Applicable

Transport hazard class(es) Not Applicable

Packing group Not Applicable

Marine pollutant

No

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

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

Not Applicable.

SECTION 15: Regulatory information

| Component | US TSCA |
|-------------------------------|---------|
| Glycerol 56-81-5 (40-70) | Listed |

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs.

US State Regulations

| Chemical Name | Massachusetts - RTK (Right-to-Know) | New Jersey - RTK (Right-to-Know) | Pennsylvania - RTK (Right-to-Know) |
|---------------|--|-------------------------------------|---------------------------------------|
| Glycerol | Listed | Listed | Listed |

California Proposition 65

This product does not contain any Proposition 65 chemicals.

US EVERBRIGHT

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations – Brazil

| Chemical Name | CAS No. | Brazil - National Agency for Sanitary Surveillance (ANVISA) | Brazil - National List of Carcinogen Agents to Humans (LINACH) |
|---------------|---------|---|--|
| Glycero | 56-81-5 | Not Listed | Not Listed |

SECTION 16: Other information

Reason for revision SDS sections updated

Version no. 1

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SAFETY DATA SHEET

Date Revised: Nov 23, 2021

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

Product Name: 10 × DNase I Buffer

Catalog Number: T6039S,T6039L

Manufacturer/Supplier:

UElandy (Suzhou) Co., Ltd.

Room 302-1, Building 1, No.18 Chunyao Road, Caohu Industrial Park, Xiangcheng District, Suzhou, P.R. China

Phone: 86-512-69571710, mailbox:service@uelandy.com

Web: <http://www.uelandy.com>

SECTION 2: Hazards identification

GHS - Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Environmental hazards

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

| | |
|--------------|---|
| Health | 0 |
| Flammability | 0 |
| Reactivity | 0 |

US EVERBRIGHT

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures

| | |
|---|---|
| Skin contact | Rinse with plenty of water. Immediate medical attention is not required. |
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Ingestion | Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice. |
| Inhalation | Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary. |
| Notes to Physician | Treat symptomatically. |
| Most important symptoms and effects, both acute and delayed | Not Applicable |
| Indication of any immediate medical attention and special treatment needed | None. |

SECTION 5: Firefighting measures

| | |
|--|---|
| Extinguishing media | |
| Suitable extinguishing media | Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical. |
| Unsuitable extinguishing media | No information available. |
| Special hazards arising from the substance or mixture | Not known. |
| Advice for fire-fighters | Standard procedure for chemical fires. |

SECTION 6: Accidental release measures

| |
|---|
| Personal precautions, protective equipment and emergency procedures |
| Ensure adequate ventilation |
| Always wear recommended Personal Protective Equipment Use personal protection equipment |
| See Section 8 for more detail |
| Environmental precautions |
| No special environmental precautions required. |
| Methods and material for containment and cleaning up |
| Soak up with inert absorbent material. |
| Reference to other sections |
| See section 8 for more information. |

SECTION 7: Handling and storage

| |
|---|
| Precautions for safe handling |
| Use personal protective equipment as required. No special handling advices are necessary. |
| Conditions for safe storage, including any incompatibilities |
| Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers. |

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

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

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | | |
|---|-------------------|------------|
| Appearance | liquid | |
| Color | No data | |
| Odor | No data available | |
| Molecular Weight | No data | |
| Melting point / melting range | °C No data | °F No data |
| Boiling point / boiling range | °C No data | °F No data |
| Flash point | °C No data | °F No data |
| Autoignition Temperature | °C No data | °F No data |
| Decomposition temperature | °C No data | °F No data |
| Evaporation rate | No data available | |
| Viscosity | No data | |
| Flammability (solid, gas) | No data available | |
| Upper explosion limit | No data | |
| Lower explosion limit | No data | |
| Vapor Pressure | No data | |
| Vapor density | No data | |
| Relative density | No data | |
| Specific gravity | No data available | |
| Solubility | No data available | |
| Partition coefficient: n-octanol/water | No data available | |
| Explosive properties | No data | |
| Oxidizing properties | No data | |
| Particle characteristics | No data | |

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Other information

No data available.

SECTION 10: Stability and reactivity

| | |
|------------------------------------|---|
| Reactivity | None known. |
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous reaction has been reported |
| Conditions to avoid | No information available. |
| Incompatible materials | No dangerous reaction known under conditions of normal use. |
| Hazardous decomposition products | No data available. |

SECTION 11: Toxicological information

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

| | |
|--|--|
| Acute toxicity | Data are conclusive but insufficient for classification. |
| Skin corrosion/irritation | Data are conclusive but insufficient for classification. |
| Serious eye damage/irritation | Data are conclusive but insufficient for classification |
| Respiratory or skin sensitization | Data are conclusive but insufficient for classification |
| Specific target organ toxicity (STOT) – single exposure | Data are conclusive but insufficient for classification |
| Specific target organ toxicity (STOT) – repeated exposure | Data are conclusive but insufficient for classification |
| Carcinogenicity | Data are conclusive but insufficient for classification |
| Germ cell mutagenicity | Data are conclusive but insufficient for classification |
| Reproductive toxicity | Data are conclusive but insufficient for classification |
| Aspiration hazard | Data are conclusive but insufficient for classification |

SECTION 12: Ecological information

Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues.

This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations

SECTION 14: Transport information

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IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number Not Applicable

UN proper shipping name Not Applicable

Transport hazard class(es) Not Applicable

Packing group Not Applicable

Marine pollutant

No

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

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

Not Applicable.

SECTION 15: Regulatory information

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations – Brazil

Not regulated

SECTION 16: Other information

Reason for revision SDS sections updated

Version no. 1

For research use only. Not for use in diagnostic procedures.

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. UElandy (Suzhou) shall not be held liable for any damage resulting from handling or contact with the above product.