

SDS DATE: May 29, 2023

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Ammonia Assay
PRODUCT CODES: Cat# MA-0125
RESTRICTIONS ON USE: For laboratory research purposes only. Not for drug or household use.
MANUFACTURER: AkrivisBio, Inc.
ADDRESS: 48511 Warm Springs Blvd., Suite 213, Fremont, CA 94539
EMERGENCY PHONE: 408-739-9315
OTHER CALLS:
FAX PHONE:
EMAIL: sds@akrivisbio.com

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Description	Volume	Safety Information
Assay Buffer	Proprietary Buffer (contains EDTA, NP-40)	25 ml	See below
ADHP Solution	In DMSO	200 µl	See below
Pyruvate Oxidase/Peroxidase	Lyophilized	1 vial	No hazards
Lactate DH/ NADH	Solid	1 vial	No hazards
Glutamate dehydrogenase	Lyophilized	1 vial	No hazards
Ammonia Standard	Aqueous solution (10 mM)	100 µl	See below

SECTION 3: HAZARDS IDENTIFICATION

Component	CAS Number	EC-No.	Molecular Weight	Chemical Formula
Tergitol	84133-50-6	617-534-0	--	--
EDTA	60-00-4	200-449-4	292.24	C ₁₀ H ₁₆ N ₂ O ₈
DMSO	67-68-5	200-664-3	78.13	C ₂ H ₆ OS
Ammonium Chloride	12125-02-9	235-186-4	53.49	NH ₄ Cl

Tergitol:

Emergency Overview

GHS Classification: Skin irritation (Category 2), H315
Skin sensitization (Sub-category 1A), H317
Short-term (acute) aquatic hazard (Category 1), H400
Long-term (chronic) aquatic hazard (Category 1), H410

GHS Label elements, including precautionary statements

Pictogram:



Signal word:

Warning

Hazard statement(s):

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.
P501 Dispose of contents/ container to an approved waste disposal plant

HMIS Classification

Health hazard: 0

Chronic health hazard:

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity hazard: 0

Potential Health Effects

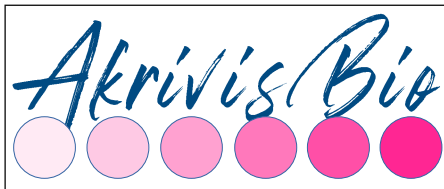
Inhalation: May be harmful if inhaled. Material is irritating to the tissue of the mucous membranes and upper respiratory tract. Harmful; if inhaled. May cause allergy or asthma symptoms or breathing difficulties.

Skin: May be harmful if absorbed through skin. May cause an allergic skin reaction.

Eyes: Causes eye irritation.

Ingestion: Harmful if swallowed.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated



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EDTA:

Emergency Overview

OSHA Hazards: Irritant

GHS Classification: Acute toxicity, Oral (Category 5)
Eye irritation (Category 2A)
Acute aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements

Pictogram:



Signal word: Warning

Hazard statement(s): H303 May be harmful if swallowed.
H319 Causes serious eye irritation.
H402 Harmful to aquatic life.

Precautionary statement(s): P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container to an approved waste disposal plant.

HMIS Classification

Health hazard: 2

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 2

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

DMSO:

Emergency Overview

OSHA Hazards: Combustible Liquid, Target Organ Effect

Target Organs: Eyes, Skin

GHS Classification: Flammable liquids (Category 4)

GHS Label elements, including precautionary statements

Pictogram: none

Signal word: Warning

Hazard statement(s): H227 Combustible liquid

Precautionary statement(s): none

HMIS Classification

Health hazard: 0

Chronic Health Hazard: *

Flammability: 2

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 2

Reactivity Hazard: 0

Potential Health Effects

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

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

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

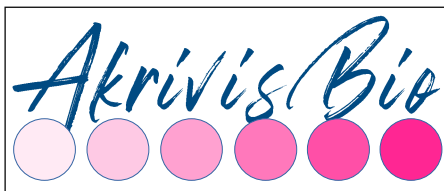
Aggravated Medical Condition: Avoid contact w/DMSO solutions containing toxic materials or materials with unknown toxicological properties. DMSO is readily absorbed through skin and may carry such materials into the body.

Ammonium chloride:

Emergency Overview

OSHA Hazards: Irritant, Harmful by ingestion

GHS Classification: Acute toxicity, Oral (Category 4)



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Eye irritation (Category 2A)
Acute aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram:



Signal word:

Warning

Hazard statement(s):

H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H401 Toxic to aquatic life.

Precautionary statement(s):

P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container to an approved waste disposal plant.

HMIS Classification

Health hazard: 2

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 2

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: Harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: Harmful if swallowed.

SECTION 4: FIRST AID MEASURES

Tergito:

General advice: : First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

If inhaled: Move person to fresh air; if effects occur, consult a physician.

In case of skin contact: Immediately flush skin with water while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Contaminated leather items such as shoes should be disposed of properly. Safety shower should be located in immediate work area.

In case of eye contact: : Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Eye wash fountain should be located in immediate work area.

If swallowed: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient

SECTION 5: FIRE-FIGHTING MEASURES

Tergito:

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

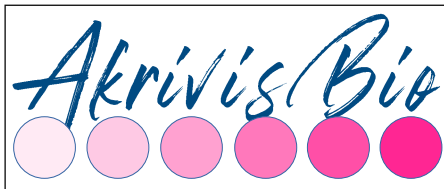
Unsuitable Extinguishing Media: Do not use direct water stream. May spread fire.

Special hazards arising from the substance or mixture: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Advice for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Further information: Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

DMSO:



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Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

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

Hazardous combustion products: Hazardous combustion products formed under fire conditions – no data available.

Further information: Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Tergitol:

Personal precautions, protective equipment and emergency procedures: isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Spilled material may cause a slipping hazard. Refer to section 7, Handling, for additional precautionary measures.

Environmental precautions: : Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12 Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Absorb with materials such as: Sand. Dirt. Collect in suitable and properly labeled containers. Do not use water for cleanup. See Section 13, Disposal Considerations, for additional information.

NAD(Beta-Nicotinamide Adenine DiNucleotide Sodium Salt):

Personal precautions: Avoid dust formation. Avoid breathing vapors, mist, gas, or dust.

Environmental precautions: Do not let product enter drains.

Methods for cleaning up: Sweep up and shovel. Keep in suitable, closed containers for disposal

SECTION 7: HANDLING AND STORAGE

Tergitol:

Handling: Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Spills of these organic materials on hot fibrous insulations may lead to lowering of the Autoignition temperatures possibly resulting in spontaneous combustion.

Storage: No specific requirements. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact. The shelf life given is for unopened containers stored under moderate temperature conditions

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Tergitol:

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Poly(ethylene oxide)	US WEEL	TWA aerosol	10 mg/m3

Engineering Controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Personal protective equipment:

Respiratory Protection

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Hand protection

Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber, Chlorinated polyethylene, Polyethylene.

Eye protection

Use chemical goggles.

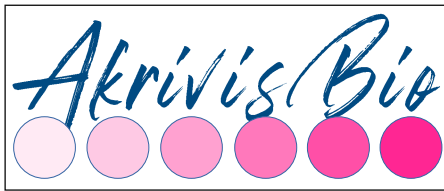
Skin and body protection

Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task

Components	CAS-No.	Value	Control parameters	Basis
Dimethyl sulfoxide	67-68-5	TWA	250 ppm	USA. Workplace Environmental Exposure Levels (WEEL)

Components	CAS-No.	Value	Control parameters	Basis
Ammonium chloride	12125-02-9	TWA	10 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Remarks		Eye & upper respiratory tract irritation.		
		STEL	20 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Eye & upper respiratory tract irritation.		
		TWA	10 mg/m ³	USA. OSHA – TABLE Z-1 Limits for Air Contaminants – 1910.1000
		STEL	20 mg/m ³	USA. OSHA – TABLE Z-1 Limits for Air Contaminants – 1910.1000
		TWA	10 mg/m ³	USA. NIOSH Recommended Exposure Limits
		STEL	20 mg/m ³	USA. NIOSH Recommended Exposure Limits

Personal protective equipment



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Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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.

Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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

Property	Tergitol	EDTA	DMSO	NH ₄ Cl
Appearance:	Liquid	White powder	Clear liquid	Solid
pH:	7.2	2.5 at 10 g/l	No data available	4.5-5/5
Water Solubility:	< 0.5 %	No data available	Completely miscible	Soluble
Other Solubility:	No data available	No data available	No data available	No data available
Boiling Point (°C):	> 200 °C (> 392 °F)	No data available	189 °C (372 °F)	No data available
Melting Point (°C):	No data available	250 °C (482 °F)	16-19 °C (61-66 °F)	340 °C (644 °F)
Flash Point (°C):	218 °C (424 °F) ASTM D 93, closed cup	No data available	87 °C (189 °F)	No data available
Ignition Temp. (°C):	No data available	No data available	301 °C (574 °F)	No data available
Density:	1.027 at 20 °C (68 °F) / 20 °C	0.860 g/cm ³	1.1 g/ml	No data available

SECTION 10: STABILITY AND REACTIVITY

Property	NP-40	EDTA	DMSO	NH ₄ Cl
Chemical stability:	Stable under recommended storage conditions			
Conditions to avoid:	Strong heating	No data available	Heat, Flames, Sparks	Moisture
Materials to avoid:	Strong acids, strong bases, strong oxidizing agents	Strong oxidizing agents	Acid chlorides, Phosphorus halides, Strong acids, Strong oxidizing agents, Strong reducing agents	Strong acids, strong bases, strong oxidizing agents
Hazardous decomposition products:	Carbon oxides	Carbon oxides, nitrogen oxides	Carbon oxides, sulfur oxides	Nitrogen oxides, hydrogen chloride gas

SECTION 11: TOXICOLOGICAL INFORMATION

Tergitol:

Acute toxicity: No data available

Skin corrosion/irritation: Mixture causes skin irritation.

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitization: Mixture may cause an allergic skin reaction.

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

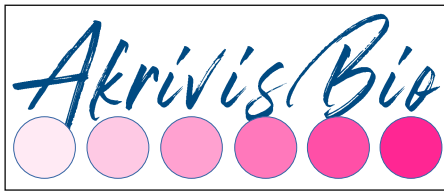
Specific target organ toxicity – single exposure (GHS): No data available

Specific target organ toxicity – repeated exposure (GHS): No data available

Aspiration hazard: No data available

Synergistic effects: No data available

Additional information: RTECS: No data available



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EDTA:

Acute toxicity: LD50 Oral – rat – 2,580 mg/kg

Skin corrosion/irritation: Skin – rabbit – no skin irritation

Serious eye damage/eye irritation: Eyes – rabbit – eye irritation

Respiratory or skin sensitization: Will not occur

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

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): Inhalation – may cause respiratory irritation.

Specific target organ toxicity – repeated exposure (GHS): no data available

Aspiration hazard: no data available

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

DMSO:

Acute toxicity: LD50 Oral - rat - 14,500 mg/kg

LC50 Inhalation - rat - 4 h - 40250 ppm

LD50 Dermal - rabbit - > 5,000 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory/skin sensitization: no data available

Germ cell mutagenicity: Genotoxicity in vitro - mouse – lymphocyte → Cytogenetic analysis

Genotoxicity in vitro - mouse – lymphocyte → Mutation in mammalian somatic cells.

Genotoxicity in vivo - rat – Intraperitoneal → Cytogenetic analysis

Genotoxicity in vivo - mouse – Intraperitoneal → DNA damage

Carcinogenicity: Carcinogenicity – rat – Oral → Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin & Appendages: Tumors.

Carcinogenicity – mouse – Oral → Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Leukaemia Skin & Appendages: Other: Tumors.

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: Reproductive toxicity – rat – Intraperitoneal → Effects on Fertility: Abortion.

Reproductive toxicity – rat – Intraperitoneal → Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Reproductive toxicity – rat – Subcutaneous → Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth).

Reproductive toxicity – mouse – Oral → Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

Teratogenicity: Developmental Toxicity – mouse – Intraperitoneal → Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

Signs and Symptoms of Exposure: Exposure via ingestion may cause nausea, fatigue, headache.

Additional Information: RTECS: PV6210000

Ammonium Chloride:

Acute toxicity: LD50 Oral – rat – 1,650 mg/kg

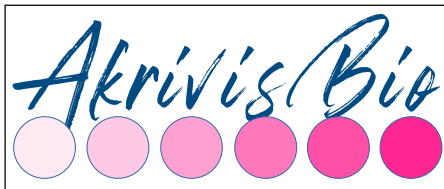
Skin corrosion/irritation: Skin – rabbit – no skin irritation

Serious eye damage/eye irritation: Eyes – rabbit – eye irritation

Respiratory or skin sensitization: Will not occur

Germ cell mutagenicity: no data available

Carcinogenicity:



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- 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

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): no data available

Specific target organ toxicity – repeated exposure (GHS): no data available

Aspiration hazard: no data available

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: Harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: Harmful if swallowed.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information: RTECS: BP4550000

SECTION 12: ECOLOGICAL INFORMATION

Tergitol:

Toxicity: No data available

Persistence and degradability: Readily biodegradable

Bioaccumulative potential: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: No data available

EDTA:

Persistence and degradability: no data available

Toxicity: Toxicity to fish: mortality NOEC – Lepomis macrochirus – 24 mg/l – 96.0 h

LC50 – Lepomis macrochirus (Bluegill) – 34-62 mg/l – 96.0 h

Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia magna (Water flea) – 113 mg/l – 48 h

Bioaccumulative potential: Lepomis macrochirus – 28 d

Bioconcentration factor (BCF): 1.8

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life. May be harmful to aquatic organisms due to the shift of the pH. Avoid release to the environment.

DMSO:

Persistence and degradability: no data available

Toxicity: Toxicity to fish: LC50 – Pimephales promelas (fathead minnow) – 34,000 mg/l – 96 h

LC50 – Oncorhynchus mykiss (rainbow trout) – 35,000 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia pulex (Water flea) – 27,500 mg/l

Toxicity to algae: EC50 – Lepomis macrochirus (Bluegill) – >400,000 mg/l – 96 h

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

Ammonium chloride:

Persistence and degradability: no data available

Toxicity: Toxicity to fish: LC50 – Cyprinus carpio (Carp) – 209 mg/l – 96 h

LC50 – Oncorhynchus mykiss (Rainbow trout) – 3.98 mg/l – 96 h

NOEC – Oncorhynchus mykiss (Rainbow trout) 57 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia magna (Water flea) – 161 mg/l – 48 h

Growth inhibition NOEC – Daphnia magna (Water flea) 0.1 mg/l – 216 h

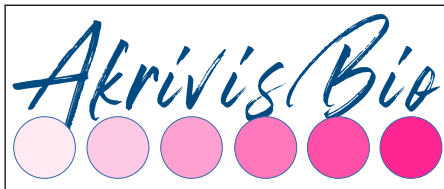
Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS



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Tergitol:

Product: Waste material must be disposed of in accordance with the national and local No mixing with other waste.

SECTION 14: TRANSPORT INFORMATION

Tergitol:

DOT (US): Not dangerous goods

IMDG: UN number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: Environmentally hazardous substance, liquid.
Marine pollutant : yes

IATA: UN number: 3082 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, liquid.

EDTA:

DOT (US): UN-Number: 3077 Class: 9, Packing group: III; Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Edetic acid); Reportable Quantity (RQ): 5000 lbs.; Marine pollutant: No; Poison Inhalation Hazard: No

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

DMSO:

DOT (US): UN-Number: 1993, Class: CBL, Packing group: III; Proper shipping name: Combustible liquid, n.o.s. (Dimethyl sulfoxide); Marine pollutant: No; Poison Inhalation Hazard: No

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

Ammonium chloride:

DOT (US): UN-Number: 3077 Class: 9, Packing group: III; Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Ammonium chloride); Reportable Quantity (RQ): 5000 lbs.; Marine pollutant: No; Poison Inhalation Hazard: No

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

SECTION 15: REGULATORY INFORMATION

EDTA:

OSHA Hazards: Irritant

SARA 302 Components: SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title II, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

Massachusetts Right to Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components: Ethylenediaminetetraacetic acid disodium, CAS-No. 6381-92-6

New Jersey Right to Know Components: Ethylenediaminetetraacetic acid disodium, CAS-No. 6381-92-6

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

DMSO:

OSHA Hazards: Combustible Liquid, Target Organ Effect

DSL Status: All components of this product are on the Canadian DSL list.

SARA 302 Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components ; Dimethyl sulfoxide CAS-No. 67-68-5; Revision Date: 2007-03-01

New Jersey Right To Know Components: Dimethyl sulfoxide CAS-No. 67-68-5; Revision Date: 2007-03-01

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

Ammonium chloride:

OSHA Hazards: Irritant, Harmful by ingestion

SARA 302 Components: The following components are subject to reporting levels established by SARA Title III, Section 302:

Ammonium chloride, CAS-No. 12125-02-9; Revision Date: 2007-03-01

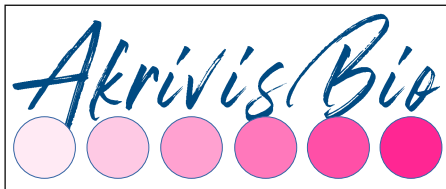
SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title II, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

Massachusetts Right to Know Components: Ammonium chloride, CAS-No. 12125-02-9; Revision Date: 2007-03-01

Pennsylvania Right to Know Components: Ammonium chloride, CAS-No. 12125-02-9; Revision Date: 2007-03-01

New Jersey Right to Know Components: Ammonium chloride, CAS-No. 12125-02-9; Revision Date: 2007-03-01



SDS DATE: May 29, 2023

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

EU regulations

Component	Risk Phrases	Safety Phrases
Tergitol	-	-
EDTA	R36/38	S26, S36
DMSO	R10, R36/37/38	S24/25, S36/37/39, S45
Ammonium chloride	R22, R36/37/38	S22, S24/25, S36/37/39, S45

SECTION 16: OTHER INFORMATION:

DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. AkrivisBio, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.