

# MATERIAL SAFETY DATA SHEET

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product name:	Human CD3/CD28 T Cell Activation Beads
Catalog Number:	MIH001A
Application:	For research use only

## SECTION 2 HAZARDS IDENTIFICATION

### HAZARD STATEMENT

Short-term (acute) aquatic hazard (Category 2), H401

Long-term (chronic) aquatic hazard (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word Danger

H302 + H332 Harmful if swallowed or if inhaled.

H313 May be harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

P261 Avoid breathing mist or vapors.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

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.

Response

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON

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CENTER/ doctor.

P305 + P351 + P338 + IF IN EYES: Rinse cautiously with water for several minutes.

P310 Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P312 Call a POISON CENTER/ doctor if you feel unwell.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

2.4 Health hazards

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H313 May be harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

2.5 Environmental hazards

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

2.7 Other hazards - none

## SECTION 3 INFORMATION ON INGREDIENTS

Ingredient	Physical form	Concentration	CAS No.	EC No.
Proclin 300	Odorless and colorless, liquid	0.05%	55965-84-9	911-418-6

## SECTION 4 FIRST-AID MEASURES

### 4.1 General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

### 4.2 If inhaled

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

### 4.3 In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

### 4.4 In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### 4.5 If swallowed

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

## SECTION 5 FIRE FIGHTING MEASURES

### 5.1 Suitable extinguishing media

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

For small fires, use media such as “alcohol” foam, dry chemical or carbon dioxide.

For large fires, apply water from as far as possible. Use large quantities of water applied as a mist or spray. Solid streams of water may be ineffective. Cool affected containers with flooding quantities of water.

### 5.2 Special precautions for fire-fighters

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### 5.3 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### 6.1 Person-related safety precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

### 6.2 Measures for environmental protection

Prevent further leakage or spillage if safe to do so. Do not let enter drains. Discharge into the environment must be avoided.

### 6.3 Measures for containment and cleaning

Contain spillage, and then collect with non-combustible absorbent material (eg. sand, diatomaceous earth, vermiculite).

Place in a container for disposal according to local regulations. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

## SECTION 7 HANDLING AND STORAGE

### 7.1 Handling

Wear appropriate protective clothing and safety gloves.

Avoid inhalation.

Avoid contact with eyes, skin and clothing.

Mechanical exhaust required.

Keep away from ignition sources, heat and flame.

No smoking at working site.

Incompatibilities: Strong oxidizing agents, Strong acids. Handling and unloading should be light, to prevent packaging broken, damp and cause losses.

Working place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

## 7.2 Storage

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

Keep away from heat, sparks and flame.

Keep away from sources of ignition.

Incompatible: Strong oxidizing agents, Strong acids.

Storage place should be equipped with appropriate varieties and quantities of fire fighting equipment and leakage emergency treatment equipment.

## SECTION 8 EXPOSURE CONTROL/PPE

### 8.1 Engineering Controls

Mechanical exhaust required. Safety shower and eye bath.

### 8.2 Personal Protective Equipment

Respiratory: Government approved respirator if needed.

Eye/face: Chemical safety goggles if needed.

Clothing: Wear appropriate protective clothing.

Hand/skin: Protective 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.

Body protection: Wear suitable protective clothing according to the concentration and amount of the substance at the workplace.

### 8.3 Other Protect

No smoking, drinking and eating at working site. Wash thoroughly after handling.

## SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

### Proclin 300

9.1 Information on basic physical and chemical properties

- a) Physical state liquid
- b) Color light yellow
- c) Odor No data available
- d) Melting point/freezing point -40 °C
- e) Initial boiling point and boiling range 189 °C
- f) Flammability (solid, gas): No data available
- g) Upper/lower flammability or explosive limits: No data available
- h) Flash point 118 °C - closed cup
- i) Autoignition temperature: No data available
- j) Decomposition temperature: No data available
- k) pH 4.1 at 100 g/l
- l) Viscosity Viscosity, kinematic: No data available  
Viscosity, dynamic: 58.8 mPa.s at 25 °C
- m) Water solubility soluble

- n) Partition coefficient: n-octanol/water: No data available
- o) Vapor pressure No data available
- p) Density 1.03 g/cm<sup>3</sup> Relative density No data available
- q) Relative vapor density :No data available
- r) Particle characteristics: No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

#### 9.2 Other safety information

No data available

## SECTION 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Heat, flames and sparks

### 10.5 Incompatible materials

Strong oxidizing agent, Light sensitive, Alcohols, Organic materials, Heavy metals, Powdered metals, Strong reducing agents, Amines, Mercaptans.

### 10.6 Hazardous decomposition products

Other decomposition products: No data available

Hazardous decomposition products formed under fire conditions: Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Hydrogen chloride gas.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Proclin 300

#### 11.1 Information on toxicological effects Mixture

Acute toxicity

LD<sub>50</sub> Oral - Rat - 862 mg/kg

Acute toxicity estimate Inhalation - 4 h - 16.67 mg/l - vapor(Calculation method)

LD<sub>50</sub> Dermal - Rabbit - 2,800 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Corrosive

Remarks: Mixture causes burns.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Corrosive to eyes

Respiratory or skin sensitization- Guinea pig

Result: May cause sensitization by skin contact.

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

#### 11.2 Additional Information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

#### Components

Modified alkyl carboxylate

Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: 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: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

Mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H -isothiazol-3-one (3:1)

Acute toxicity

LD50 Oral - Rat - male and female - 66 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 0.171 mg/l - aerosol

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male - 87.12 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days.

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye damage.

Remarks: (ECHA)

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Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: positive

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: positive

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: positive

Test Type: Ames test

Test system: Salmonella typhimurium

Result: Positive results were obtained in some in vitro tests.

Test Type: UDS (Unscheduled DNA synthesis assay)

Test system: rat hepatocytes

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Human lymphocytes

Result: positive

Method: OECD Test Guideline 475

Species: Mouse - male and female - Bone marrow

Result: negative

Method: OECD Test Guideline 486

Species: Rat - male - Liver cells

Result: negative

Method: US-EPA

Species: Mouse - male and female - Bone marrow

Result: negative

Method: US-EPA

Species: Rat - male - Liver cells

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Red blood cells (erythrocytes)

Result: negative

Carcinogenicity: No data available

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure

Aspiration hazard: No data available

## SECTION 12 ECOLOGICAL INFORMATION

### For Research Use Only

**Proclin 300****12.1 Toxicity**

Mixture: No data available

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties: No data available

12.7 Other adverse effects: No data available

**Components**

Modified alkyl carboxylate: No data available

Mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H -isothiazol-3-one (3:1)

Toxicity to fish flow-through test LC50 - Oncorhynchus mykiss (rainbow trout)- 0.19 mg/l - 96 h(US-EPA)

Toxicity to daphnia and other aquatic invertebrates

flow-through test LC50 - Daphnia magna (Water flea) - 0.18 mg/l - 48 h(US-EPA)

Toxicity to bacteria static test EC50 - activated sludge - 4.5 mg/l - 3 h(OECD Test Guideline 209)

Toxicity to

fish(Chronic toxicity)semi-static test NOEC - Oncorhynchus mykiss (rainbow trout) -0.098 mg/l - 35 d(OECD Test Guideline 215)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)

flow-through test NOEC - Daphnia magna (Water flea) - 0.1 mg/l - 21 d(US-EPA)

**SECTION 13 DISPOSAL CONSIDERATION****13.1 Disposal methods**

Dispose of waste in accordance to applicable national, regional, or local regulations. Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**13.2 Contaminated packaging**

Dispose in the same manner as unused product.

**SECTION 14 TRANSPORT INFORMATION**

**RID/ADR:** Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

**IATA:** Non-Hazardous for Air Transport.

**IMO:** Non-Hazardous for Sea Transport.

**SECTION 15 REGULATORY INFORMATION****For Research Use Only**



This material safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008 and its amendments.

## SECTION 16 OTHER INFORMATION

**IMPORTANT! Read the safety data sheets before the use and disposal of this product. Insure that this information is understood by the operators exposed to this product. Use this product for the intended purpose as indicated in the instruction manual.**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from this use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising from using the above information.