

SAFETY DATA SHEET

Product No. 813-521 PELCO® Acrylimet Hardener

Issue Date (12-08-17)

Review Date (08-07-2023) Rev.: 2

Section 1: Product and Company Identification

Product Name: PELCO® Acrylimet Hardener

Synonym: None

Company Name

Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day

CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification

Classification of the substance or mixture.

Signal Word: **WARNING**

Hazard-determining components of labeling: Iso-Butyl methacrylate, Trimethylolpropane Trimethacrylate

GHS Categories

GHS02 - Flammables	Flammable Liquids	Category 3
GHS07 – Irritant	Skin corrosion/irritation:	Category 2
	Skin sensitization:	Category 1
	Serious eye damage/eye irritation:	Category 2A

Label elements

GHS Pictograms:



GHS02



GHS07

Hazard Statements

H226	Flammable liquid and vapor.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Precautionary Statements

Prevention:

P210	Keep away from heat, sparks, open flames, hot surfaces - no smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.

P243	Take precautionary measures against static discharge
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash face, hands and any exposed skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves, protective clothing, eye protection, and face protection.

Response:

P302 + P352	IF ON SKIN: Wash with plenty of water.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use for extinction: CO ₂ , powder or water spray.

Storage:

P403 + P235	Store in a well-ventilated place. Keep cool.
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Disposal:

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Section 3: Composition / Information on Ingredients

<u>Hazardous Component(s)</u>	<u>CAS No.</u>	<u>EC No.</u>	<u>w/w%</u>
Iso-Butyl methacrylate	97-89-6	202-613-0	< 90%
Trimethylolpropane Trimethacrylate	3290-92-4	221-950-4	<20%

Section 4: First Aid Measures

General advice:	If exposed or concerned, get medical advice or attention.
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek immediate medical attention.
Skin Contact:	Wash with soap and water. If irritation, redness or swelling persists, call a physician immediately. Take off contaminated clothing and wash before reuse.
Eye(s) Contact:	Rinse immediately with plenty of water, including under eyelids, for at least 15 minutes. If irritation persists, call a physician immediately.
Ingestion:	If ingested, do not induce vomiting. Drink plenty of water or milk immediately. If vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately and provide an estimate of when and how much material was ingested. Seek medical attention.

Note to physician:

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media: Chemical (alcohol-resistant) foam, dry chemical or carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Water spray or water stream may not be effective.

Hazardous Combustion Products: Acrid smoke-fumes/carbon dioxide and perhaps other toxic vapors may be released during a fire involving this products.

Specific hazards arising from product:

For bulk size (>1L) High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerizing reactions generating heat/pressure. Closed containers may rupture or explode during a runaway polymerization. This product is flammable liquid. Vapors of this product are heavier than air and may travel to a source of ignition and flash back to a leaking or open container. Vapors form an explosive mixture with air.

Special Fire Fighting Procedures:

Use a water spray or fog to reduce or direct vapors, and keep containers cool. Water may not be effective in actually extinguishing a fire involving this product. Do not enter fire area without proper protection. Fight fire from a safe location. Structural firefighters must wear SCBA's and full protective equipment. Heat/impurities may cause pressure to build and/or rupture closed containers, spreading fire, increasing risk of burns/injuries.

Special protective equipment for fire fighters:

Wear self-contained breathing apparatus for firefighting if necessary. Do not enter area without proper protection. Fight fire from safe distance/protected location. Heat /impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Use water spray to cool unopened containers. Pressure relief system may plug with solids creating risk of overpressure

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions: Before cleaning any spill or leak, individuals must wear personal protective equipment as required.
Remove any contaminated clothing and wash thoroughly before reuse.

Environmental precautions: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Prevent product from entering drains.
Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

Methods and material for containment and clean-up

Method for containment: Prevent further leakage or spillage if safe to do so.
Dike and contain spill with inert material.
Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
DO NOT use combustible materials such as sawdust.
May contaminate water supply.

Method for clean-up: Maximize ventilation (open doors and windows) and secure all sources of ignition.
Wash all affected areas with plenty of warm water and soap.
Place into appropriate closed container(s) for disposal in accordance with local, state and federal regulations.

Section 7: Handling and Storage

Precautions for safe handling

Advice on safe handling: Keep away from heat, sparks, and flame.
Keep container closed after each use.
Avoid contact with skin, eyes and clothing.
Use good personal hygiene and housekeeping.
After use, wash hands and exposed skin with soap and water.
Do not eat, drink, or smoke while handling product.
Ground and bond all containers when transferring.
Observe precautions found on the label.

Conditions for safe storage, including any incompatibilities:

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away from heat, sparks, flame and other sources of ignition.
Protect from direct sunlight.
Keep container closed to prevent water absorption and contamination.
Methacrylate stored in bulk quantities must be kept in contact with air (oxygen).
Keep at temperature not exceeding 30°C/86 °F.

Packaging materials: Keep in original container.
Incompatible materials Strong oxidizing agents, strong reducing agents, free-radical generators, inert gases, oxygen scavengers.

Section 8: Exposure Controls / Personal Protection

Appropriate engineering controls

Engineering controls: For bulk size: Use local explosion-proof ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits.

Individual protection measures, such as personal protective equipment

Eye / face protection: Depending on the use of this product, safety glasses or goggles may be worn.
If necessary, refer to US OSHA 29CFR SS1910.133, Canadian standard or the European Standard EN 166.
Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

Skin and body protection: If anticipated that prolonged and repeated skin contact will occur during use of this product, wear gloves for routine industrial use.
If necessary, refer to US OSHA 29CFR SS1910.138 or the appropriate standards of Canada or the EC member states.
Wear suitable protective clothing.

Respiratory protection: No special respiratory protection is required under typical circumstances of use or handling.
If necessary, use only respiratory protection authorized per US OSHA requirement in 29 CFR SS1910.134, or applicable US state regulations, or the appropriate standards of Canada, its provinces, or the EC member states.
VENTILATION: Local exhaust at processing equipment.

General hygiene: Handle in accordance with good industrial hygiene and safety practice.
Wash thoroughly after handling.
Food, beverages and tobacco products should not be carried, stored, or consumed where this material is in use.
Wash hands thoroughly before eating, drinking, or smoking.

Section 9 Physical and Chemical Properties

Physical state	Liquid
Color	Clear to slightly yellow
Odor	Acrid
Boiling point/range	311°F / 155°C
Flash point	115°F / 46°C
Flammability (solid, gas)	Not established
Upper explosion/flammability limit	Not established
Lower explosion/flammability limit	Not established
Self-ignition temperature	734°F / 390°C
Specific gravity	0.913

Section 10: Stability and Reactivity

<u>Reactivity:</u>	Unstable/Reactive upon depletion of inhibitor.
<u>Chemical stability:</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions:</u>	None under normal processing
<u>Hazardous polymerization:</u>	Hazardous polymerization may occur.
<u>Incompatible materials:</u>	Strong oxidizing agents, strong reducing agents, free-radical generators, inert gases, oxygen scavengers. Material has strong solvent properties and can soften paint and rubber.
<u>Hazardous decomposition products:</u>	Carbon oxides.

Section 11: Toxicological Information

Information on likely routes of exposures:

Target Organs - Respiratory System

- Inhalation: Harmful if inhaled.
- Eye contact: Causes severe eye irritation.
- Skin contact: Causes skin irritation. May be harmful in contact with skin.
- Ingestion: May be harmful if swallowed.
- Carcinogenicity: No data available

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information

Ecotoxicity

<u>Chemical Name</u>	<u>Algae/aquatic plant</u>	<u>Fish</u>	<u>Crustacea</u>
Iso-Butyl Methacrylate CAS No.: 97-86-9	EC50 Pseudokirchneriella subcapitata 96 h 0.29mg/L	LC50 Rainbow trout 96 h mg/L Flow through 20mg/L	EC50 Daphnia magna 48 h > 23 mg/L

Section 13 Disposal Considerations

Waste treatment methods

Disposal of wastes: Follow all local and national government regulations in disposing material or contaminated packaging.
For U.S. - Dispose of in accordance with federal, state and local regulations. When discarded, it is considered a hazardous waste by the EPA under RCRA.

Contaminated Packaging: Reuse of empty drums or containers is not recommended.
Employees should be advised of the potential hazards due to residual material associated with empty containers.

Dispose of all empty containers in accordance with local and national government regulations.

Section 14: Transportation Information

U.S. Department of Transportation Ground (DOT 49 CFR)

Proper shipping name: Flammable liquid, n.o.s. (Isobutyl methacrylate / Trimethylolpropane trimethacrylate solution)
Hazard class or division: 3
Identification number: UN 1993
Packing group: III

International Air Transportation (ICAO/IATA)

Proper shipping name: Flammable liquid, n.o.s. (Isobutyl methacrylate / Trimethylolpropane trimethacrylate solution)
Hazard class or division: 3
Identification number: UN 1993
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: Flammable liquid, n.o.s. (Isobutyl methacrylate / Trimethylolpropane trimethacrylate solution)
Hazard class or division: 3
Identification number: UN 1993
Packing group: III
Marine pollutant: NO



Labels:

The transport classification(s) provided herein are for information purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet (SDS). Transportation classifications may vary by mode of transportation, package size, and variations in regional or country regulations.

Section 15: Regulatory Information

International Inventories:

Isobutyl methacrylate

- DSL- Canadian Domestic Substances List: Listed
- EINECS - European Inventory of Existing Chemical Substances: Listed

US Federal Regulations:

SARA - Superfund Amendments and Reauthorization Act:

Section 302 (extremely hazardous substances) Substance is not listed
Section 311/312 (hazard categories) Substance is not listed
Section 313 (specific toxic chemical listings) Substance is not listed

TSCA - Toxic Substances Control Act:

ACTIVE

California Proposition 65:

Substance is not listed

Section 16: Other Information

This Safety Data Sheet (SDS) is intended to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Full text of other abbreviations

ACGIH:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-2:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
US WEEL:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA:	8-hour, time-weighted average
ACGIH / STEL:	Short-term exposure limit
NIOSH REL/TWA:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL/ST:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA:	8-hour time weighted average
OSHA Z-2/TWA:	8-hour time weighted average
OSHA Z-2/CEIL:	Acceptable ceiling concentration
OSHA Z-2/Peak:	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift
US WEEL/TWA:	8-hr TWA

AICS - Australian Inventory of Chemical Substances;

AIIC - Australian Inventory of Industrial Chemicals;

ASTM - American Society for the Testing of Materials;

bw - Body weight;

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act;

CMR - Carcinogen, Mutagen or Reproductive Toxicant;

DIN - Standard of the German Institute for Standardization;

DOT - Department of Transportation;

DSL - Domestic Substances List (Canada);

ECx - Concentration associated with x% response;

EINECS - European Inventory of Existing Chemical Substances

EHS - Extremely Hazardous Substance;

ELx - Loading rate associated with x% response;

EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan);

ErCx - Concentration associated with x% growth rate response;

ERG - Emergency Response Guide;

GHS - Globally Harmonized System;

GLP - Good Laboratory Practice;

HMIS - Hazardous Materials Identification System;

IARC - International Agency for Research on Cancer;

IATA - International Air Transport Association;

IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;

IC50 - Half maximal inhibitory concentration;

ICAO - International Civil Aviation Organization;

IECSC - Inventory of Existing Chemical Substances in China;

IMDG - International Maritime Dangerous Goods;

IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan);

ISO - International Organization for Standardization;

KECI - Korea Existing Chemicals Inventory;

LC50 - Lethal Concentration to 50 % of a test population;

LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose);

MARPOL - International Convention for the Prevention of Pollution from Ships;
MSHA - Mine Safety and Health Administration;
n.o.s. - Not Otherwise Specified;
NFPA - National Fire Protection Association;
NO(A)EC - No Observed (Adverse) Effect Concentration;
NO(A)EL - No Observed (Adverse) Effect Level;
NOELR - No Observable Effect Loading Rate;
NTP - National Toxicology Program;
NZIoC - New Zealand Inventory of Chemicals;
OECD - Organization for Economic Co-operation and Development;
OPPTS - Office of Chemical Safety and Pollution Prevention;
PBT - Persistent, Bioaccumulative and Toxic substance;
PICCS - Philippines Inventory of Chemicals and Chemical Substances;
(Q)SAR - (Quantitative) Structure Activity Relationship;
RCRA - Resource Conservation and Recovery Act;
REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals;
RQ - Reportable Quantity;
SADT - Self-Accelerating Decomposition Temperature;
SARA - Superfund Amendments and Reauthorization Act;
SDS - Safety Data Sheet;
TCSI - Taiwan Chemical Substance Inventory;
TSCA - Toxic Substances Control Act (United States);
UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods;
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

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