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Certified Company



THE POWER OF THREE³

PHARMCO-AAPER

AND COMMERCIAL ALCOHOLS

Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

MATERIAL SAFETY DATA SHEETS

Manufacturer: PHARMCO-AAPER
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CHEMTREC 1-800-424-9300

Section 1 - Product and Company Information

Product Name ETHYL ACRYLATE

Section 2 - Composition/Information on Ingredient

Substance Name CAS # SARA 313

ETHYL ACRYLATE 140-88-5 Yes

Formula C₅H₈O₂

Synonyms Acrylate d'ethyle (French) * Acrylsaecureaethylster (German) * Aethylacrylat (German) *
Akrylanem etylu (Polish) * Ethoxycarbonylethylene * Ethylacrylaat (Dutch) * Ethyl acrylate
(ACGIH:OSHA) * Ethylakrylat (Czech) * Ethylester kyseliny akrylove (Czech) * Ethyl propenoate * Ethyl
2-propenoate * Etil acrilato (Italian) * Etilacrilatului (Romanian)
2-Propenoic acid, ethyl ester
RTECS Number: AT0700000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Flammable (USA) Highly Flammable (EU).

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

Lachrymator. Possible Carcinogen (US). Unpleasant odor. Target organ(s): Liver. Kidneys. Calif. Prop. 65 carcinogen.

HMIS RATING

HEALTH: 3*

FLAMMABILITY: 3

REACTIVITY: 0

NFPA RATING

HEALTH: 3

FLAMMABILITY: 3

REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

FLAMMABLE HAZARDS

Flammable Hazards: Yes

EXPLOSION HAZARDS

Container explosion may occur under fire conditions. Forms explosive mixtures in air.

FLASH POINT 46.4 °F 8 °C Method: closed cup

EXPLOSION LIMITS Lower: 1.8 % Upper: 12.1 %

AUTOIGNITION TEMP 383 °C

FLAMMABILITY N/A

EXTINGUISHING MEDIA

Suitable: 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.

FIREFIGHTING

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

Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions. Vapor may travel considerable distance to source of ignition and flash back.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors.

Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed. Keep away from heat, sparks, and open flame.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

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

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

EXPOSURE LIMITS, RTECS

Country Source Type Value

USA ACGIH STEL 15 PPM

USA ACGIH TWA 5 PPM

USA MSHA Standard-air TWA 25 PPM (100 MG/M3) (SKIN)

USA OSHA. PEL 8H TWA 25 PPM (100 MG/M3) (SKI

New Zealand OEL

Remarks: check ACGIH TLV

USA NIOSH (4.0 PPM LOQ)

EXPOSURE LIMITS

Country Source Type Value

Poland NDS 20 MG/M3

Poland NDSCh 80 MG/M3

Poland NDSP -

Section 9 - Physical/Chemical Properties

Appearance Physical State: Liquid

Color: Colorless

Property Value At Temperature or Pressure

Molecular Weight 100.12 AMU

pH N/A

BP/BP Range 98.0 - 100.0 °C

MP/MP Range - 71.0 °C

Freezing Point N/A

Vapor Pressure 31 mmHg 20 °C

Vapor Density 3.5 g/l

Saturated Vapor Conc. N/A

SG/Density 0.921 g/cm³

Bulk Density N/A

Odor Threshold N/A

Volatile% N/A

VOC Content N/A

Water Content N/A

Solvent Content N/A

Evaporation Rate N/A

Viscosity N/A

Surface Tension N/A

Partition Coefficient N/A

Decomposition Temp. N/A

Flash Point 46.4 °F 8 °C Method: closed cup

Explosion Limits Lower: 1.8 %

Upper: 12.1 %

Flammability N/A

Autoignition Temp 383 °C

Refractive Index 1.406

Optical Rotation N/A

Miscellaneous Data N/A

Solubility N/A
N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions to Avoid: Heat. May polymerize on exposure to light.

Materials to Avoid: Oxidizing agents, Peroxides.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Skin Absorption: Harmful if absorbed through skin.

Eye Contact: Lachrymator. Causes eye irritation.

Inhalation: Material is irritating to mucous membranes and upper respiratory tract. Harmful if inhaled.

Ingestion: Harmful if swallowed.

SENSITIZATION

Skin: May cause allergic skin reaction.

TARGET ORGAN(S) OR SYSTEM(S) Liver. Kidneys.

SIGNS AND SYMPTOMS OF EXPOSURE

Exposure can cause: Nausea. Headache. Drowsiness. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral Rat 800 mg/kg LD50

Inhalation Rat 1,414 ppm LC50

Remarks: Lungs, Thorax, or Respiration: Dyspnea. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Olfaction: Other changes. Gastrointestinal: Changes in structure or function of salivary glands.

Intraperitoneal

Rat 450 MG/KG LD50 Oral

Mouse 1799 mg/kg LD50

Inhalation Mouse 16,200 mg/m³ LC50

Skin Mouse 2997 mg/kg LD50

Intraperitoneal

Mouse 599 MG/KG

LD50 Oral Rabbit 370 mg/kg LD50

Remarks: Gastrointestinal: Alteration in gastric secretion.

Skin Rabbit 500 UL/KG LD50

Remarks: Lungs, Thorax, or Respiration: Acute pulmonary edema.

Liver: Other changes. Skin and Appendages: Skin: After systemic exposure: Dermatitis, other

IRRITATION DATA

Eyes Rat 1,204 ppm 14H

Eyes Monkey 1,204 ppm 15H

Skin Rabbit 500 mg

Remarks: Open irritation test

Skin Rabbit 10 mg 24H

Remarks: Mild irritation effect

Eyes Rabbit 45 mg

Remarks: Mild irritation effect

Eyes Rabbit 1,204 ppm 7H

Eyes: Guinea pig; 1,204 ppm 7H

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Species: Rat

Route of Application: Oral

Dose: 51500 MG/KG

Exposure Time: 2Y

Frequency: I

Result: Gastrointestinal:Tumors. Tumorigenic:Carcinogenic by RTECS criteria.

Species: Mouse

Route of Application: Oral

Dose: 103 GM/KG

Exposure Time: 2Y

Frequency: I

Result: Tumorigenic:Carcinogenic by RTECS criteria.

Gastrointestinal:Tumors.

IARC CARCINOGEN LIST

Rating: Group 2B

NTP CARCINOGEN LIST

Rating: Clear evidence.

Species: Mouse/rat

Route: Gavage

ACGIH CARCINOGEN LIST

Rating: A4

CHRONIC EXPOSURE - MUTAGEN

Result: Laboratory experiments have shown mutagenic effects.

Species: Mouse

Route: Intraperitoneal

Dose: 225 MG/KG

Mutation test: Micronucleus test

Species: Mouse

Dose: 20 MG/L (+S9)

Cell Type: lymphocyte

Mutation test: Mutation in microorganisms

Species: Mouse

Dose: 20 MG/L

Cell Type: lymphocyte

Mutation test: Cytogenetic analysis

Species: Mouse

Dose: 20 MG/L

Cell Type: lymphocyte

Mutation test: Mutation in mammalian somatic cells.

Species: Hamster

Dose: 299 MG/L

Cell Type: ovary

Mutation test: Cytogenetic analysis

Species: Hamster

Dose: 9800 UG/L

Cell Type: lung

Mutation test: Cytogenetic analysis

Species: Hamster

Dose: 150 MG/L

Cell Type: ovary

Mutation test: Sister chromatid exchange

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat

Dose: 8 GM/KG
Route of Application: Oral
Exposure Time: (0-19D PREG)
Result: Maternal Effects: Other effects.
Section 12 - Ecological Information
No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Ethyl acrylate, inhibited

UN#: 1917

Class: 3

Packing Group: Packing Group II

Hazard Label: Flammable liquid

PIH: Not PIH

IATA

Proper Shipping Name: Ethyl acrylate, stabilized

IATA UN Number: 1917

Hazard Class: 3

Packing Group: II

Section 15 - Regulatory Information

EU DIRECTIVES CLASSIFICATION

Symbol of Danger: F-Xn

Indication of Danger: Highly Flammable. Harmful.

R: 11-20/21/22-36/37/38-43

Risk Statements: Highly flammable. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

S: 9-16-33-36/37

Safety Statements: Keep container in a well-ventilated place.

Keep away from sources of ignition - no smoking. Take precautionary measures against static discharges.

Wear suitable protective clothing and gloves.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Flammable (USA) Highly Flammable (EU).

Risk Statements: Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

Safety Statements: Keep container in a well-ventilated place.

Keep away from sources of ignition - no smoking. Take precautionary measures against static discharges.

Wear suitable protective clothing and gloves.

US Statements: Possible Carcinogen (US). Lachrymator. Unpleasant odor. Target organ(s): Liver. Kidneys. Calif. Prop. 65 carcinogen.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes

DEMINIMIS: 0.1 %

NOTES: This product is subject to SARA section 313 reporting requirements.

TSCA INVENTORY ITEM: Yes

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or

greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are:

Chemical Name	CAS Number	RQ
Ethyl acrylate	140-88-5	1,000lb

UNITED STATES - STATE REGULATORY INFORMATION

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Ethyl acrylate

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Other Information

DISCLAIMER

The information contained herein is based on data considered to be accurate based on the material as packaged. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It is the user's obligation to determine the conditions of safe use of the product. While this MSDS is based on technical data judged to be reliable, PHARMCO-AAPER assumes not responsibility for the completeness or accuracy of the information contained herein.