

EASTMAN

Eastman Chemical Company
P. O. Box 431
Kingsport, Tennessee 37662

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August 20, 1998

Contains NO TSCA Confidential
Business Information

8EHQ - 0898-140308

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Document Control Office (7407)
ATTN: TSCA Section 8(e)
Room G99 East Tower Waterside Mall
USEPA/OPPT
401 M Street, S.W.
Washington, DC 20460-0001

COMPANY SANITIZED

Attn: Mr. Terry O'Bryan

Re: Cyclopropanedicarboxylic acid, methyl ester (MCPC), CAS # 2868-37-3

Dear Mr. O'Bryan:

This letter is in response to the July 20, 1998 letter from Mr. Richard Hefter to Mr. Marc Schurger, Director, Product Safety and Stewardship, Eastman Chemical Company, requesting additional information about the use and exposure to the above-referenced chemical.

Although the chemical identity of this chemical is *not* confidential, much of the information in this letter *is* considered to be confidential business information, such as production volume and process information. Paragraphs containing confidential information have been enclosed in brackets. A certification of the confidentiality of this information is enclosed.

Eastman Chemical Company is pleased to provide the following written information to assist in your risk assessment relating to MCPC. MCPC is manufactured and used commercially by Eastman Chemical Company as a company-limited substance. It's sole use is as an intermediate for a pesticide.

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Mr. Terry O'Bryan
Cyclopropanecarboxylic acid, methyl ester
August 20, 1998

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Mr. Terry O'Bryan
Cyclopropanecarboxylic acid, methyl ester
August 20, 1998

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Eastman Chemical Company has conducted several studies of the physical and toxicological properties of MCPC. The results of these studies are summarized in the MSDS for the substance, a copy of which is enclosed.

In conclusion, MCPC is manufactured in enclosed equipment by Eastman Chemical Company as a company-limited intermediate that is chemically converted to another product. A total of about 48 workers at the manufacturing and use sites are potentially exposed. Risk management practices are in place to minimize actual exposure to MCPC via engineering controls and the required use of personal protective equipment.

I trust this information will be of use to you in determining whether formal risk assessment is needed for MCPC. We will be happy to discuss MCPC further with you by teleconference or by a meeting in Washington if needed, once this written information is reviewed.

Very truly yours,



F. David Petke, Ph. D.
Senior Technical Associate
Product Safety and Stewardship
(423) 229-4274

Enclosures

cc: Marc G. Schurger, Director
Product Safety and Stewardship

MATERIAL SAFETY DATA SHEET

000002852/F/USA

Revision Date: 05/08/1998

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: METHYL CYCLOPROPANECARBOXYLATE

Product Identification Number(s): PM 15858-00

Manufacturer/Supplier: Eastman Chemical Company, Kingsport, Tennessee 37662

MSDS Prepared by: Eastman Product Safety and Stewardship, Eastman Chemical Company, Kingsport, TN 37662

For Emergency Health, Safety & Environmental Information, call 800-EASTMAN

For Emergency Transportation Information, call CHEMTREC at 800-424-9300 or call 800-EASTMAN

For Other Information, call your Eastman representative or the Eastman operator at 423-229-2000 (USA)

Chemical Name: methyl cyclopropanecarboxylate

Synonym(s): EAN 007777; PM 15858-00; MCPC

Molecular Formula: C5H8O2

Molecular Weight: 100.12

Product Use: specialty chemical

2. COMPOSITION/INFORMATION ON INGREDIENTS

Weight % - Component - (CAS Registry Number)

100 methyl cyclopropanecarboxylate (002868-37-3)

3. HAZARDS IDENTIFICATION

DANGER!

FLAMMABLE LIQUID AND VAPOR

HARMFUL IF INHALED, ABSORBED THROUGH SKIN, OR SWALLOWED

MAY CAUSE CARDIOVASCULAR SYSTEM DAMAGE BASED ON ANIMAL DATA

MAY CAUSE TESTICULAR DAMAGE BASED ON ANIMAL DATA

MAY CAUSE BLOOD DISORDERS BASED ON ANIMAL DATA

MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA

CAUSES EYE IRRITATION

HMIS Hazard Ratings: Health - 3, Flammability - 3, Chemical Reactivity - 0

NFPA Hazard Ratings: Health - 3, Flammability - 3, Instability - 0

NOTE: HMIS and NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

4. FIRST-AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Eyes: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.

Skin: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Call a physician or poison control center immediately. Induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Extinguishing Media: water spray, dry chemical, carbon dioxide (CO₂), foam

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. USE WATER WITH CAUTION. Material will float and may ignite on surface of water. Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire.

Hazardous Combustion Products: carbon dioxide, carbon monoxide

Unusual Fire and Explosion Hazards: Flammable. Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations.

6. ACCIDENTAL RELEASE MEASURES

Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

For Large Spills: Use water spray to disperse vapors and flush spill area. Prevent runoff from entering drains, sewers, or streams.

7. HANDLING AND STORAGE

Personal Precautionary Measures: Do not breathe mist or vapor. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Use only with adequate

ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from heat, sparks, and flame. Keep from contact with oxidizing materials. Use only with adequate ventilation. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

Storage: Keep container tightly closed. Keep container in a well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

ACGIH Threshold Limit Value (TLV): not established

OSHA (USA) Permissible Exposure Limit (PEL, 1989 Table Z-1-A values or section-specific standards): not established

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels to an acceptable level.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Respirator type: full-face positive-pressure air-supplied; organic vapor. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998.

Eye Protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin Protection: Wear chemical-resistant gloves, boots, and protective clothing appropriate for the risk of exposure. Contact glove manufacturer for specific information.

Recommended Decontamination Facilities: eye bath, washing facilities, safety shower

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical Form: liquid
- Color: colorless
- Odor: slight
- Odor Threshold: not available
- Specific Gravity (water = 1): 0.998
- Vapor Pressure at 20 C (68 F): 16.8 mbar (12.6 mm Hg)
- Vapor Density (Air = 1): not available
- Evaporation Rate: not available
- Boiling Point: 117-119 C (243-246 F)

- Melting Point: not available
- Viscosity at Ambient Temperature: not available
- Solubility in Water at 21 C (70 F): 2.8 %
- pH: not applicable

- Octanol/Water Partition Coefficient: $\log P = 1.17$, $P = 14.8$ (estimated)
- Flash Point (method unspecified): 17 C (64 F)
- Lower Flammable Limit: not available
- Upper Flammable Limit: not available
- Autoignition Temperature (ASTM E 659): 437-440 C (816.6-824 F)
- Sensitivity to Mechanical Impact: insensitive at 600 inch-pounds
- Sensitivity to Static Discharge: not available
- CHETAH Estimate of Sensitivity: insensitive; heat of decomposition: -0.61 kcal/g, heat of combustion: -6.28 kcal/g

10. STABILITY AND REACTIVITY

Stability: stable

Incompatibility: Material can react with strong oxidizing agents, bases.

Hazardous Polymerization: will not occur

11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

General: May cause cardiovascular system damage based on animal data. May cause testicular damage based on animal data. May cause blood disorders based on animal data. May cause liver damage based on animal data.

Inhalation: Harmful if inhaled.

Eyes: Causes irritation.

Skin: Harmful if absorbed through skin.

Ingestion: Harmful if swallowed. May cause irritation of the gastrointestinal tract.

Acute Toxicity Data:

Oral LD-50 (rat): 707 mg/kg

Inhalation LC-50 (rat): 800 ppm/6 hour(s)

Dermal LD-50 (rat): >2000 mg/kg

Skin irritation (rabbit): none

Skin sensitization (guinea pig): none

Eye irritation (rabbit, unwashed eyes): slight to moderate

Eye irritation (rabbit, washed eyes): slight to moderate

Definitions for the following section(s): LOEL = lowest-observed-effect level, NOAEL = no observed-adverse-effect level, NOEL = no-observed-effect level.

Subchronic Toxicity Data:

Inhalation study (28 days, male rat): LOEL = 24 ppm (target organ effects: heart, liver); NOEL = not established (heart, liver); LOEL = 240 ppm (target organ effects: testes); NOEL = 120 ppm (testes)

Inhalation study (28 days, female rat): LOEL = 24 ppm (target organ effects:

heart, liver, bone marrow); NOEL = not established

12. ECOLOGICAL INFORMATION

Introduction: This environmental effects summary is written to assist in addressing emergencies created by an accidental spill which might occur during the shipment of this material, and, in general, it is not meant to address discharges to sanitary sewers or publicly owned treatment works.

Summary: Data for this material have been used to estimate its environmental impact. It has the following properties: a low biochemical oxygen demand and little potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to biodegrade (high persistence) with unacclimated microorganisms from activated sludge, a low potential to bioconcentrate. When diluted with a large amount of water, this material released directly or indirectly into the environment is not expected to have a significant impact.

Oxygen Demand Data:

BOD-5: 0.014 g oxygen/g
BOD-20: 0.087 g oxygen/g
COD: 1.79 g oxygen/g

Acute Aquatic Effects Data:

96-h LC-50 (fathead minnow): >115 mg/l

Biodegradation:

A 28-day test for ready biodegradability using unacclimated microorganisms showed 35% degradation of the test article as measured by a loss of dissolved oxygen.

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Contract with a licensed chemical disposal agency.

Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

14. TRANSPORT INFORMATION

- DOT (USA) Status: regulated
- Class 3, packing group II
- DOT Subsidiary Risk: Class 6.1, packing group III

- Air - International Civil Aviation Organization (ICAO)
- ICAO Status: regulated

- Class 3, packing group II
- ICAO Subsidiary Risk: Class 6.1, packing group III

- Sea - International Maritime Dangerous Goods (IMDG)
- IMDG Status: regulated
- Class 3.2, packing group II
- IMDG Subsidiary Risk: Class 6.1, packing group III

15. REGULATORY INFORMATION

- This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- OSHA Classification: hazardous
- California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): material(s) known to the State to cause cancer: none known to Eastman
- California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): material(s) known to the State to cause adverse reproductive effects: none known to Eastman
- This document has been prepared in accordance with the MSDS requirements of the WHMIS Controlled Products Regulation.
- WHMIS (Canada) Status: controlled
- WHMIS (Canada) Hazard Classification: B/2, D/1/A
- Carcinogenicity Classification (components present at 0.1% or more):
 - International Agency for Research on Cancer (IARC): not listed
 - American Conference of Governmental Industrial Hygienists (ACGIH): not listed
 - National Toxicology Program (NTP): not listed
 - Occupational Safety and Health Administration (OSHA): not listed
- Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none
- SARA (U.S.A.) Sections 311 and 312 hazard classification(s): fire hazard, immediate (acute) health hazard, delayed (chronic) health hazard
- US Toxic Substances Control Act (TSCA): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.
- Canadian Environmental Protection Act (CEPA) and Domestic Substances List (DSL): This product is not listed on the DSL. In Canada, its use is restricted to research and development purposes only.
- European Inventory of Existing Commercial Chemical Substances (EINECS): This product is listed on EINECS. EINECS Number: 2206909
- Australian Inventory of Chemical Substances (AICS) and National Industrial Chemicals Notification and Assessment Scheme (NICNAS): This product is listed on AICS or otherwise complies with NICNAS.
- Japanese Handbook of Existing and New Chemical Substances: One or more components or reactants of this product are not listed in the Handbook. In Japan, its use is restricted to research and development purposes only.
- Korean Toxic Substances Control Act: One or more components of this product are not listed on the Korean inventory. In Korea, its use is restricted to research and development purposes only.

16. OTHER INFORMATION

Label Statements:

DANGER!

FLAMMABLE LIQUID AND VAPOR
HARMFUL IF INHALED, ABSORBED THROUGH SKIN, OR SWALLOWED
MAY CAUSE CARDIOVASCULAR SYSTEM DAMAGE BASED ON ANIMAL DATA
MAY CAUSE TESTICULAR DAMAGE BASED ON ANIMAL DATA
MAY CAUSE BLOOD DISORDERS BASED ON ANIMAL DATA
MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA
CAUSES EYE IRRITATION

Keep away from heat, sparks, and flame.
Do not breathe mist or vapor.
Do not get in eyes, on skin, on clothing.
Do not taste or swallow.
Keep container tightly closed.
Use only with adequate ventilation.
Wash thoroughly after handling.

FIRST AID: If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If easy to do, remove contact lenses. Get medical attention immediately. Wash clothing before reuse. Destroy or thoroughly clean contaminated shoes.

IN CASE OF FIRE: Use water spray, dry chemical, carbon dioxide (CO₂), foam. **USE WATER WITH CAUTION.** Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire.

IN CASE OF SPILL: Eliminate all ignition sources. Use water spray to disperse vapors and flush spill area. Prevent runoff from entering drains, sewers, and streams.

Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

CAUTION: FOR MANUFACTURING, PROCESSING OR REPACKING BY TRAINED PERSONNEL

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.

Substantiation of Confidentiality

Use and Exposure Information Relating to Cyclopropanecarboxylic Acid, Methyl Ester

1. Is your company asserting this confidential business information (CBI) claim on its own behalf?

Yes
2. For what period do you assert your claim(s) of confidentiality?

Indefinitely. This is a new process for manufacture of this chemical and product life has not been determined.
3. Has the information that you are claiming as confidential been disclosed to any other governmental agency, or to this Agency, at any other time? Was the disclosure accompanied by a claim of confidentiality?

No. This chemical is on the TSCA inventory.
4. Briefly describe any physical or procedural restrictions within your company relating to the use and storage of the information you are claiming CBI.

Process information, cost information, and production volume information are all protected at Eastman Chemical Company and are available only to those with a need to know. Such information is marked as restricted, is kept in locked files, and is available only at the sites where it is used. Any such information kept on computer systems is password protected and access is limited to those with a need to know.
5. If anyone outside your company has access to any of the information claimed CBI, are they restricted by confidentiality agreement(s)? If so, explain the content of the agreements.

Not applicable. The chemical is for internal use only.
6. Does the information claimed as confidential appear or is it referred to in any of the following?
 - a. Advertising or promotional material for the chemical substance or the resulting end product?

No.

**Substantiation of confidentiality
Cyclopropanecarboxylic acid, methyl ester**

- b. **Material safety data sheets or other similar materials (such as technical data sheets) for the substance or resulting end product (including copies of this information as it appears when accompanying the substance and/or product at the time of transfer or sale)?**

No.

- c. **Professional or trade publications?**

No.

- d. **Any other media or publications available to the public or to your competitors?**

No.

7. **Has EPA, another federal agency, or court made any confidentiality determination regarding information associated with this substance?**

No.

8. **Describe the substantial harmful effects that would result to your competitive position if the CBI information is made available to the public.**

Distribution of information that would provide price, cost or market share information to competitors is unlawful under the antitrust statutes of the U.S. Certain information in this submission, claimed CBI, when used by a knowledgeable person, could result in disclosure of such cost and market information to a competitor.

9. **Has the substance been patented in the U.S. or elsewhere? Is a patent for the substance currently pending?**

No.

10. **Is this substance/product commercially available and if so, for how long has it been available on the commercial market?**

- a. **If on the commercial market, are your competitors aware that the substance is commercially available in the U.S.?**

Yes.

Substantiation of confidentiality
Cyclopropanecarboxylic acid, methyl ester

- b. If not already commercially available, describe what stage of research and development (R&D) the substance is in, and estimate now soon a market will be established.

Not applicable.

- c. What is the substance used for and what type of product(s) does it appear in?

The substance is an intermediate for a pesticide.

11. Describe whether a competitor could employ reverse engineering to identically recreate the substance?

The identity of the substance is not confidential. However, some of the production information could be used to reverse engineer the process by which it is made; and that process is one of the items being claimed as CBI.

12. Do you assert that disclosure of this information you are claiming CBI would reveal:

- a. Confidential processes used in manufacturing the substance?

Yes. Knowledge of the production volume and number of workers potentially exposed would give one skilled in the art valuable knowledge about the process and process economics for this substance. Such information could erode Eastman's competitive position.

- b. If a mixture, the actual portions of the substance in the mixture?

No.

- c. Information unrelated to the effects of the substance on human health or the environment?

No.

13. Provide the Chemical Abstracts Service Registry Number for the product, if known.

The identity is not being claimed confidential. CAS # 2868-37-3.

Substantiation of confidentiality
Cyclopropanecarboxylic acid, methyl ester

14. Is the substance or any information claimed CBI the subject of FIFRA regulation or reporting?

No.