

Revision number: 2 Revision date: 10/06/2014

# 1. IDENTIFICATION

Product name: Product code: Methyl (R)-(+)-2-(4-Hydroxyphenoxy)propionate H0956

For laboratory research purposes.

Not for drug or household use.

**TCI AMERICA** 

SAFETY DATA SHEET

Emergency telephone number:

TCI America (8:00am - 5:00pm) PST

Chemical Emergencies:

Transportation Emergencies:

+1-703-527-3887 (International) Responsible department:

Environmental Health Safety and Security

+1-800-424-9300 (U.S.A.)

+1-503-286-7624

Chemtrec 24-Hour

+1-503-286-7624

**TCI** America

Product use: Restrictions on use:

Company:

CI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

## 2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Signal word:

Danger!

Hazard Statement(s):

Causes serious eye damage Causes skin irritation Harmful to aquatic life Harmful to aquatic life with long lasting effects

Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 1] Aquatic Hazard (Acute) [Category 3] Aquatic Hazard (Long-Term) [Category 3]

## Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage]

[Disposal]

Wash hands and face thoroughly after handling. Wear protective gloves. Wear eye protection. Wear face protection (full length face shield). If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. None

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Substance Methyl (R)-(+)-2-(4-Hydroxyphenoxy)propionate

| 3. COMPOSITION/INFORMATION O<br>Percent:                                                                                                                                          | >98.0%(GC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|
|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |           |
| CAS Number:                                                                                                                                                                       | 96562-58-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |           |
| Molecular Weight: 196.20   Chemical Formula: C <sub>10</sub> H <sub>12</sub> O <sub>4</sub>                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |           |
|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Synonyms: |
| 4. FIRST-AID MEASURES                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |           |
|                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |           |
| Inhalation:                                                                                                                                                                       | Immediately call a poison center or doctor. Move victim to fresh air. Give artificial respiration if victim is not<br>breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically<br>and supportively. Ensure that medical personnel are aware of the material(s) involved and take<br>precautions to protect themselves.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |           |
| Skin contact:                                                                                                                                                                     | Immediately call a poison center or doctor. Remove and wash contaminated clothing before re-use. In<br>case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat<br>symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and<br>take precautions to protect themselves.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |           |
| Eye contact:                                                                                                                                                                      | IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Eye contact<br>with vapors or substance may cause severe injury, burns, or death. Call emergency medical service. Move<br>victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |           |
| Ingestion:                                                                                                                                                                        | symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Do not induce vomiting with out medical advice. If swallowed, seek medical advice immediately and show the container or label. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |  |           |
| Symptoms/effects:                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |           |
| Acute:<br>Delayed:                                                                                                                                                                | Pain. Redness.<br>No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |           |
| Immediate medical attention:                                                                                                                                                      | WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because<br>the inhaled material is corrosive. For severe burns, immediate medical attention is required. If breathing<br>has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury.<br>Ensure that medical personnel are aware of the material(s) involved and take precautions to protect<br>themselves.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |
| 5. FIRE-FIGHTING MEASURES                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |           |
| Suitable extinguishing media:                                                                                                                                                     | Dry chemical, $CO_2$ or water spray. Consult with local fire authorities before attempting large scale fire fighting operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |           |
| Specific hazards arising from the chemi<br>Hazardous combustion products:<br>Other specific hazards:                                                                              | cal<br>These products include: Carbon oxides<br>Closed containers may explode from heat of a fire.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |           |
| Special precautions for fire-fighters:<br>Use water spray or fog; do not use straight<br>heated. Move containers from fire area if y<br>Special protective equipment for fire-fig |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |           |
| Wear positive pressure self-contained brea                                                                                                                                        | inters.<br>thing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations<br>ions. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |           |
| 6. ACCIDENTAL RELEASE MEASU                                                                                                                                                       | RES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |           |
| Personal precautions:                                                                                                                                                             | Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |

| Personal precautions:          | Avoid contact with skin, eyes, and clothing. Reep people away from and upwind of spill/leak. Do not touch |
|--------------------------------|-----------------------------------------------------------------------------------------------------------|
|                                | damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn   |
|                                | unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. |
|                                | Isolate the hazard area and deny entry to unnecessary and unprotected personnel.                          |
| Personal protective equipment: | Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Dust        |
|                                | respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves         |
|                                | (nitrile).                                                                                                |

Prevent dust cloud. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

## Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material. Dike far ahead of spill; use dry sand to contain the flow of material. Ventilate the area.

**Environmental precautions:** 

**Emergency procedures:** 

Environmental hazard. Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

| Precautions for safe handling: | Avoid inhalation of vapor or mist. Manipulate under an adequate fume hood. Avoid contact with skin and eyes. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition. |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conditions for safe storage:   | Keep only in the original container in a cool well-ventilated place. Keep away from incompatibles.<br>Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid<br>prolonged storage periods.                                                                                                                                                          |
| Storage incompatibilities:     | Store away from oxidizing agents                                                                                                                                                                                                                                                                                                                                                               |

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No data available

### Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

## Personal protective equipment

| Respiratory protection:   | Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. |
|---------------------------|---------------------------------------------------------------------------------|
| Hand protection:          | Wear protective gloves.                                                         |
| Eye protection:           | Safety glasses.                                                                 |
| Skin and body protection: | Lab coat.                                                                       |

# 9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state (20°C):<br>Form:<br>Color:<br>Odor:<br>Odor threshold:                                                            | Solid<br>Crystal - Powder<br>White - Pale yellow<br>No data available<br>No data available       |                                                                |                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------|
| Melting point/freezing point:<br>Boiling point/range:<br>Decomposition temperature:<br>Relative density:<br>Kinematic Viscosity: | 66°C (151°F)<br>No data available<br>No data available<br>No data available<br>No data available | pH:<br>Vapor pressure:<br>Vapor density:<br>Dynamic Viscosity: | No data available<br>No data available<br>No data available<br>No data available |
| Partition coefficient:<br>n-octanol/water (log P <sub>ow</sub> )                                                                 | No data available                                                                                | Evaporation rate:<br>(Butyl Acetate = 1)                       | No data available                                                                |
| Flash point:<br>Flammability (solid, gas):                                                                                       | No data available<br>No data available                                                           | Autoignition tempe<br>Flammability or exp<br>Lower:<br>Upper:  |                                                                                  |

## Solubility(ies):

## 10. STABILITY AND REACTIVITY

Reactivity: Chemical Stability: Not Available. Stable under recommended storage conditions. (See Section 7)

| Methyl (R)-(+)-2-(4-Hydroxyphenoxy)prop                                                                                           | bionate TCI AM                                                                   | IERICA                       |                             | Page 4 of 5                         |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------|-----------------------------|-------------------------------------|
| 10. STABILITY AND REACTIVITY                                                                                                      |                                                                                  |                              |                             |                                     |
| Possibility of Hazardous Reactions:<br>Conditions to avoid:<br>Incompatible materials:<br>Hazardous Decomposition Products:       | No hazardous rea<br>Avoid excessive h<br>Strong oxidizing a<br>No data available |                              |                             |                                     |
| 11. TOXICOLOGICAL INFORMATION                                                                                                     | V                                                                                |                              |                             |                                     |
|                                                                                                                                   |                                                                                  |                              |                             |                                     |
| Acute Toxicity:<br>No data available                                                                                              |                                                                                  |                              |                             |                                     |
| Skin corrosion/irritation:<br>No data available                                                                                   |                                                                                  |                              |                             |                                     |
| Serious eye damage/irritation:<br>No data available                                                                               |                                                                                  |                              |                             |                                     |
| <b>Respiratory or skin sensitization:</b><br>No data available                                                                    |                                                                                  |                              |                             |                                     |
| Germ cell mutagenicity:<br>No data available                                                                                      |                                                                                  |                              |                             |                                     |
| Carcinogenicity:                                                                                                                  |                                                                                  |                              |                             |                                     |
| No data available                                                                                                                 |                                                                                  |                              |                             |                                     |
| IARC: No data available                                                                                                           | NTP:                                                                             | No data available            | OSHA:                       | No data available                   |
| <b>Reproductive toxicity:</b><br>No data available                                                                                |                                                                                  |                              |                             |                                     |
| Routes of Exposure:<br>Symptoms related to exposure:                                                                              |                                                                                  | ntact, Ingestion, Skin conta |                             |                                     |
| Skin contact may result in inflammation; cha<br>or dry skin. Eye contact can result in cornea<br><b>Potential Health Effects:</b> | al damage or blindne                                                             |                              | casionally blistering. Skir | contact may result in redness, pain |
| Skin and eye contact may result in irritation <b>Target organ(s):</b>                                                             | No data available                                                                |                              |                             |                                     |
| 12. ECOLOGICAL INFORMATION                                                                                                        |                                                                                  |                              |                             |                                     |
| Ecotoxicity                                                                                                                       |                                                                                  |                              |                             |                                     |
| Fish:                                                                                                                             | No data available<br>No data available                                           |                              |                             |                                     |
| Crustacea:<br>Algae:                                                                                                              | No data available                                                                |                              |                             |                                     |
| Persistence and degradability:                                                                                                    | No data available                                                                |                              |                             |                                     |
| Bioaccumulative potential (BCF):<br>Mobillity in soil:                                                                            | No data available<br>No data available                                           |                              |                             |                                     |

Bioaccumulative potentia Mobillity in soil: Partition coefficient: n-octanol/water (log Pow) Soil adsorption (Koc): Henry's Law: constant (PaM<sup>3</sup>/mol) No data available No data available No data available No data available

| 13. DISPOSAL CONSIDERATION                      | vs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disposal of product:                            | Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil. |
| Disposal of container:<br>Other considerations: | Dispose of as unused product. Do not re-use empty containers.<br>Observe all federal, state and local regulations when disposing of the substance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| 14. TRANSPORT INFORMATION |                                   |  |  |  |
|---------------------------|-----------------------------------|--|--|--|
| DOT (US)                  | Non-hazardous for transportation. |  |  |  |
| IATA                      | Non-hazardous for transportation. |  |  |  |
| IMDG                      | Non-hazardous for transportation. |  |  |  |

## **15. REGULATORY INFORMATION**

#### Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.

(ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

## **US Federal Regulations**

| CERCLA Hazardous substance and Re | portable Quantity: |                      |
|-----------------------------------|--------------------|----------------------|
| SARA 313:                         | Not Listed         |                      |
| SARA 302:                         | Not Listed         |                      |
|                                   |                    |                      |
| State Regulations                 |                    |                      |
| State Right-to-Know               |                    |                      |
| Massachusetts                     | Not Listed         |                      |
| New Jersey                        | Not Listed         |                      |
| Pennsylvania                      | Not Listed         |                      |
| California Proposition 65:        | Not Listed         |                      |
| Other Information                 |                    |                      |
| NFPA Rating:                      |                    | HMIS Classification: |

| Health:            | 1      | Health:       |
|--------------------|--------|---------------|
| Flammability:      | 0      | Flammability: |
| Instability:       | 0      | Physical:     |
|                    |        |               |
| nternational Inver | tories |               |

| WHMIS h | azard cla | ass: |
|---------|-----------|------|
|---------|-----------|------|

E: Corrosive material. D2B: Materials causing other toxic effects. (Toxic) 411-950-4

# 16. OTHER INFORMATION

EC-No:

#### Revision date: 10/06/2014

#### **Revision number: 2**

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.

1 0 0