1. IDENTIFICATION

| Product name: | 2-Methyl-3-[(3,4-methylenedioxyphenyl)propionaldehyde |
| Product code: | M2404 |
| Product use: | For laboratory research purposes. |
| Restrictions on use: | Not for drug or household use. |

Company:
TCI 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

Emergency telephone number:
Chemical Emergencies:
TCI America (8:00am - 5:00pm) PST
+1-503-286-7624
Transportation Emergencies:
Chemtrec 24-Hour
+1-800-424-9300 (U.S.A.)
+1-703-527-3887 (International)
Responsible department:
TCI America
Environmental Health Safety and Security
+1-503-286-7624

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:
WHMIS 2015:
- Sensitization - Skin [Category 1]
- Toxic to Reproduction [Category 2]
- Specific Target Organ Toxicity (Repeated Exposure) [Category 2]
- Aquatic Hazard (Acute) [Category 2]
- Aquatic Hazard (Long-Term) [Category 2]

Signal word: Warning!

Hazard Statement(s):
- May cause an allergic skin reaction
- Suspected of damaging fertility or the unborn child
- Toxic to aquatic life
- Toxic to aquatic life with long lasting effects
- May cause damage to organs through prolonged or repeated exposure: Liver Thymus Ovary

Pictogram(s) or Symbol(s):

Precautionary Statement(s):
[Prevention]
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist, vapors or spray. Avoid release to the environment. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves, protective clothing, face protection.

[Response]
If on skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing before reuse. If exposed or concerned: Get medical advice or attention. Collect spillage.

[Storage]
Store locked up.

[Disposal]
Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40 CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

Hazards not otherwise classified:
[HNOC]
None.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance/mixture:</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components:</td>
<td>2-Methyl-3-(3,4-methylenedioxyphenyl)propionaldehyde</td>
</tr>
<tr>
<td>Percent:</td>
<td>&gt;97.0%(GC)</td>
</tr>
<tr>
<td>CAS RN:</td>
<td>1205-17-0</td>
</tr>
<tr>
<td>Molecular Weight:</td>
<td>192.21</td>
</tr>
<tr>
<td>Chemical Formula:</td>
<td>C₁₁H₁₂O₃</td>
</tr>
<tr>
<td>Synonyms:</td>
<td>α-Methyl-1,3-benzodioxole-5-propanal</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.

Skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention.

Ingestion: Get medical advice/attention. Rinse mouth.

Symptoms/effects:

Acute: Redness.

Delayed: No data available

Indication of any immediate medical attention:
Not available.

Notes to physician:
No data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, water spray, carbon dioxide.

Unsuitable extinguishing media: Solid streams of water

Hazardous combustion products: These products include: Carbon oxides

Other specific hazards: Closed containers may explode from heat of a fire.

Advice for firefighters: Wear self-contained breathing apparatus if possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

Environmental precautions: Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned.

Methods and materials for containment and cleaning up: Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

Precautions for safe handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid all contact!

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a cool and dark place. Store locked up. Store away from incompatible materials such as oxidizing agents.

Packaging material: Comply with laws.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls: Follow safe industrial engineering/labatory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment
Respiratory protection: Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
Hand protection: Impervious gloves.
Eye protection: Safety goggles. A face-shield, if the situation requires.
Skin and body protection: Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Liquid
Form: Clear
Colour: Slightly pale yellow - Yellow
Odour: No data available
Odor threshold: No data available
Melting point/freezing point: No data available
Boiling point/range: 154°C /0.8kPa (309°F)
Decomposition temperature: No data available
Relative density: 1.17
Kinematic viscosity: No data available
Log Pow: No data available
Flash point: No data available
Flammability(solid, gas): No data available
Solubility(ies): [Water] No data available
[Other solvents] No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: Stable under proper conditions.
Possibility of hazardous reactions: No special reactivity has been reported.
Incompatible materials: Oxidizing agents
Hazardous decomposition products: Carbon dioxide, Carbon monoxide
11. TOXICOLOGICAL INFORMATION

RTECS Number: DF4922185

Acute Toxicity:
No data available

Skin corrosion/irritation:
No data available

Serious eye damage/irritation:
No data available

Respiratory or skin sensitization:
No data available

Germ cell mutagenicity:
No data available

Carcinogenicity:
No data available

<table>
<thead>
<tr>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Reproductive toxicity:
No data available

Target organ(s):
May cause damage to organs through prolonged or repeated exposure: Liver Thymus Ovary

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Fish: 96h LC50:5.3 mg/L (Oncorhynchus mykiss)
Crustacea: 48h EC50:8.3 mg/L (Daphnia magna)
Algae: 72h EC50:28 mg/L (Selenastrum capricornutum)

Persistence / degradability:
No data available

Bioaccumulative potential (BCF):
No data available

Mobility in soil:
Log Pow: No data available
Soil adsorption (Koc): No data available
Henry's Law (Pa M^-3/mol): No data available

13. DISPOSAL CONSIDERATIONS

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:
Dispose of as unused product. Do not re-use empty containers.

Other considerations:
Observe all federal, state and local regulations when disposing of the substance.
14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>DOT (US)</th>
<th>Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s</th>
<th>Class or Division: 9 Miscellaneous hazardous material</th>
<th>Packing Group: III</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number: UN3082</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IATA</td>
<td>Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s</td>
<td>Class or Division: 9 Miscellaneous hazardous material</td>
<td>Packing Group: III</td>
</tr>
<tr>
<td>UN number: UN3082</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMDG</td>
<td></td>
<td>Environmentally hazardous substance, liquid, n.o.s</td>
<td>Class or Division: 9 Miscellaneous hazardous material</td>
</tr>
<tr>
<td>UN number: UN3082</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EmS number:</td>
<td>F-A, S-F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):
This product is on the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations
CERCLA Hazardous substance and Reportable 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: Health: 0 Flammability: 0 Instability: 0
HMIS Classification: Health: 0 Flammability: 0 Physical: 0

International Inventories
- Canada: DSL On DSL
- EC-No: 214-881-6

16. OTHER INFORMATION

Revision date: 07/06/2018
Revision number: 1

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.