Material Safety Data Sheet
2-Methylcyclohexanol, mixture of cis and trans
ACC# 97403

Section 1 - Chemical Product and Company Identification

**MSDS Name:** 2-Methylcyclohexanol, mixture of cis and trans  
**Catalog Numbers:** AC166890000, AC166890010, AC166890025, AC166890050, AC166892500  
**Synonyms:** o-Methylcyclohexanol; 2-Methylcyclohexyl alcohol.  
**Company Identification:**  
Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410  
For information in North America, call: 800-ACROS-01  
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
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<tbody>
<tr>
<td>583-59-5</td>
<td>2-Methylcyclohexanol, mixture of cis and trans</td>
<td>99</td>
<td>209-512-0</td>
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</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: viscous liquid. Flash Point: 58 deg C.  
**Warning!** Flammable liquid and vapor. Harmful if inhaled. May cause eye, skin, and respiratory tract irritation.  
**Target Organs:** Liver.

**Potential Health Effects**  
**Eye:** May cause eye irritation.  
**Skin:** May cause skin irritation. May be harmful if absorbed through the skin.  
**Ingestion:** May cause irritation of the digestive tract. May be harmful if swallowed.  
**Inhalation:** Harmful if inhaled. May cause respiratory tract irritation.  
**Chronic:** Chronic exposure may cause liver damage.
Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Ingestion:** Do not induce vomiting. Get medical aid.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Notes to Physician:** Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Containers may explode in the heat of a fire. Flammable liquid and vapor.

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide.

**Flash Point:** 58 deg C (136.40 deg F)

**Autoignition Temperature:** 296 deg C (564.80 deg F)

**Explosion Limits, Lower:** 1.30 vol %

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 2; Instability: 0

Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

Section 7 - Handling and Storage
Handling: Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methylcyclohexanol, mixture of cis and trans</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: 2-Methylcyclohexanol, mixture of cis and trans: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear, colorless - viscous
Odor: menthol odor
pH: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 163 - 166 deg C @ 760 mmHg
**Freezing/Melting Point:** -38 deg C
**Decomposition Temperature:** Not available.
**Solubility:** slightly soluble
**Specific Gravity/Density:** 0.930
**Molecular Formula:** C7H14O
**Molecular Weight:** 114.19

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**Section 10 - Stability and Reactivity**

**Chemical Stability:** Stable under normal temperatures and pressures.
**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat.
**Incompatibilities with Other Materials:** Acid chlorides, acid anhydrides, strong oxidizing agents.
**Hazardous Decomposition Products:** Carbon monoxide, carbon monoxide, carbon dioxide.
**Hazardous Polymerization:** Has not been reported.

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**Section 11 - Toxicological Information**

**RTECS#:**
**CAS# 583-59-5: GW0220000**
**LD50/LC50:**
Not available.

**Carcinogenicity:**
CAS# 583-59-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.
**Teratogenicity:** No information available.
**Reproductive Effects:** No information available.
**Mutagenicity:** No information available.
**Neurotoxicity:** No information available.
**Other Studies:**

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**Section 12 - Ecological Information**

**Ecotoxicity:** No data available. No information available.
**Environmental:** Degradation studies: Compound can be hydroxylated by Mortierella isabellina (Holland, H.L. J.Chem.Soc., Perkin Trans. 2 1990)
Physical: No information available.
Other: Do not empty into drains.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>Canada TDG</th>
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<tbody>
<tr>
<td>Shipping Name:</td>
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<td>METHYLCYCLOHEXANOLS</td>
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<tr>
<td>Hazard Class:</td>
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<tr>
<td>UN Number:</td>
<td>UN2617</td>
<td>UN2617</td>
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<tr>
<td>Packing Group:</td>
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<td>III</td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 583-59-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes
CAS # 583-59-5: immediate, delayed, fire.

Section 313  No chemicals are reportable under Section 313.

Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.

Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
CAS# 583-59-5 can be found on the following state right to know lists: California.

California Prop 65
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols:
XN

Risk Phrases:
R 20 Harmful by inhalation.

Safety Phrases:
S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)
CAS# 583-59-5: 1

Canada – DSL/NDSL
CAS# 583-59-5 is listed on Canada’s DSL List.

Canada - WHMIS
This product has a WHMIS classification of B3, D1B.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

| Section 16 - Additional Information |

MSDS Creation Date: 3/19/1998
Revision #4 Date: 6/03/2008

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third
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