Material Safety Data Sheet
Dimethylmercury

MSDS# 99021

Section 1 - Chemical Product and Company Identification

MSDS Name: Dimethylmercury
Catalog Numbers: AC317180000, AC3171800010, AC317180100
Synonyms: None.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaan 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 593-74-8
Chemical Name: Dimethylmercury
%: 95
EINECS#: 209-805-3

Hazard Symbols: T+ F

Risk Phrases: 11 33 39/27

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Flammable liquid and vapor. Causes respiratory tract irritation. May cause allergic skin reaction. May be fatal if absorbed through the skin. May cause kidney damage. May cause central nervous system effects. Causes eye and skin irritation. May cause fetal effects. Target Organs: Kidneys, central nervous system.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be fatal if absorbed through the skin. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. If absorbed, causes symptoms similar to those of inhalation. Effects may be delayed. May cause severe dermatitis and burns.

Ingestion: May cause irritation of the digestive tract. May cause effects similar to those for inhalation exposure.

Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. Systemic intoxication is cumulative and has been fatal. May produce numbness and tingling of the lips, hands, and feet.
Inhalation: (paresthesia) and ataxia (failure of muscular coordination). Exposure may produce speech disturbances, constriction of the visual fields, hearing impairment, and emotional disturbances. Severe intoxication may produce clonic seizures, (which may be irreversible), incontinence, spasticity, jerking of the limbs, head, and shoulders. Severe intoxication may produce emotional disturbances, hypersalivation, tearing, nausea, vomiting, and diarrhea or constipation.

Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. May cause fetal effects. Chronic exposure to mercury may cause permanent central nervous system damage, fatigue, weight loss, tremors, personality changes. Chronic ingestion may cause accumulation of mercury in body tissues. Chronic exposure to mercury vapors may produce weakness, fatigue, anorexia, loss of weight and gastrointestinal disturbances which is collectively referred to as asthenic-vegetative syndrome or micromercurialism. Chronic exposure to mercury compounds may produce immunologic glomerular disease.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.

Skin: Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Discard contaminated clothing in a manner which limits further exposure. SPEEDY ACTION IS CRITICAL!

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Section 5 - Fire Fighting Measures

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Autoignition Temperature: Not available
Flash Point: 5 deg C (41.00 deg F)
Explosion Limits: Lower: Not available
Explosion Limits: Upper: N/A
NFPA Rating: health: 4; flammability: 3; instability: 0;

Section 6 - Accidental Release Measures

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

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Wash thoroughly after handling. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
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<tbody>
<tr>
<td>Dimethylmercury</td>
<td>0.01 mg/m3 TWA (as Hg)</td>
<td>0.01 mg/m3 TWA (as Hg)</td>
<td>0.01 mg/m3 TWA</td>
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<td>(listed under Mercury, alkyl compounds)</td>
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<td>0.03 mg/m3 STEL (as Hg)</td>
<td>2 mg/m3 Ceiling (listed under Mercury, alkyl compounds)</td>
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<td>alkyl</td>
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OSHA Vacated PELs: Dimethylmercury: 0.01 mg/m3 TWA (as Hg, Enforcement indefinitely stayed) (listed under Mercury, alkyl compounds)

Engineering Controls:
Use only under a chemical fume hood.

Exposure Limits

Personal Protective Equipment

Eyes: Wear chemical splash goggles. 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 plastic-laminate glove (SilverShield) alone or in combination with other gloves.

Clothing: Wear appropriate protective clothing to prevent skin exposure. Wear an impervious apron.

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
Color: colorless
Odor: faint sweet odor
pH: Not available
Vapor Pressure: Not available
Vapor Density: 8.0
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: 93 - 94 deg C
Freezing/Melting Point: -43 deg C ( -45.40°F)
Decomposition Temperature: Not available
Solubility in water: Not available
Specific Gravity/Density: 2.9610g/cm³
Molecular Formula: C₂H₆Hg
Molecular Weight: 230.67

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat.
Incompatibilities with Other Materials: Not available
Hazardous Decomposition Products: Carbon monoxide, carbon monoxide, carbon dioxide, toxic fumes of mercury.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 593-74-8: OW3010000
LD50/LC50: RTECS: Not available.
Carcinogenicity: Dimethylmercury - IARC: Group 2B carcinogen
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: TOXIC BY INHALATION LIQUID, FLAMMABLE, N
Hazard Class: 6.1
UN Number: UN3383
Packing Group: I
Canada TDG
Shipping Name: Not available
Hazard Class: Not available
UN Number: Not available
Packing Group: Not available

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols: T+ F
Risk Phrases:
R 11 Highly flammable.
R 33 Danger of cumulative effects.
R 39/27 Very toxic : danger of very serious irreversible effects in contact with skin.
Safety Phrases:
S 9 Keep container in a well-ventilated place.
S 13 Keep away from food, drink and animal feeding stuffs.
S 16 Keep away from sources of ignition - No smoking.
S 28A After contact with skin, wash immediately with plenty of water.
S 33 Take precautionary measures against static discharges.
S 36 Wear suitable protective clothing.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)
CAS# 593-74-8: Not available

Canada
CAS# 593-74-8 is listed on Canada's NDSL List
Canadian WHMIS Classifications: B2, D1A, D2A
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.

CAS# 593-74-8 is listed on Canada's Ingredient Disclosure List

US Federal
TSCA
CAS# 593-74-8 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 8/07/1998
Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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 the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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