MATERIAL SAFETY DATA SHEET
METHYL IODIDE

1.1 Product Identifiers:

Product Name : Methyl Iodide
CAS No : 74-88-4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Supplier: Infinium Pharmachem Pvt. Ltd.(AN ISO 9001:2008 CERTIFIED CO.)
38, G.I.D.C, Sojitra
Dist: Anand
Gujarat, India

Tel : 0091-2697-234987
Fax : 0091-2697-234987
Email : info@infiniumpharmachem.com

Synonyms : Iodomethane
CAS No. : 74-88-4
Molecular Weight : 141.94 g/mol
Chemical Formula : CH3I
3.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Skin irritation (Category 2), H315
Respiratory sensitization (Category 1), H334
Skin sensitization (Category 1), H317
Carcinogenicity (Category 2), H351
Acute toxicity, Dermal (Category 4), H312
Acute toxicity, Inhalation (Category 3), H331
Acute toxicity, Oral (Category 3), H301
Specific target organ toxicity -single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 15

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

T Toxic R23/25
Xn Harmful R21
Xi Irritant R37/38

For the full text of the R-phrases mentioned in this Section, see Section 15

3.2 Label elements

**Labeling according Regulation (EC) No 1272/2008**

Pictogram
Signal word Danger

Hazard statement(s)

H301 + H331 Toxic if swallowed or if inhaled
H312 Harmful in contact with skin.
H315 Causes skin irritation
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.

Precautionary statement(s)

P261 Avoid breathing vapours.
P280 Wear protective gloves/ protective clothing.
P301 + P310
IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P311 Call a POISON CENTER or doctor/ physician.

Supplemental Hazard

Statements--none

3.3 Other hazards

Vesicant, Rapidly absorbed through skin
4.1 Description of first aid measures

**Eye Contact:** IMMEDIATELY FLUSH EYES with gently running water for at least twenty to thirty (20-30) minutes, holding eyelids open while flushing. DO NOT INTERRUPT FLUSHING. Take care not to flush contaminated water into unaffected eye. Wear protective gloves to avoid contamination during first aid procedures. GET MEDICAL ATTENTION IMMEDIATELY.

**Skin Contact:** Under running water, remove contaminated clothing (including shoes, watches, belts and rings). IMMEDIATELY FLUSH the exposed area with gently running water for at least twenty to thirty (20-30) minutes. Take care to completely clean folds, creases, groin, under fingernails. Wear protective gloves to avoid contact. GET MEDICAL ATTENTION IMMEDIATELY.

**Serious Skin Contact:** Not available.

**Inhalation:** IMMEDIATELY remove to fresh air (caution must be used by rescuers to avoid exposure). Give oxygen for breathing difficulty. If breathing has STOPPED give artificial respiration. Avoid direct contact; use a mouth guard. If breathing and pulse are ABSENT, give CPR. GET MEDICAL ATTENTION IMMEDIATELY. Stay with casualty until medical help arrives. Second rescuer should obtain oxygen equipment and ambulance.

**Serious Inhalation:** Not available.

**Ingestion:** DO NOT INDUCE VOMITING. If casualty is alert and not convulsing, rinse mouth with water and give 1 to 2 glasses of water or milk to dilute material. IMMEDIATELY OBTAIN MEDICAL ATTENTION. If spontaneous vomiting occurs; have casualty lean forward with head down to avoid breathing in of vomitus, rinse mouth thoroughly and administer 1 to 2 glasses of water or milk. If breathing has STOPPED give artificial respiration. If breathing and pulse are ABSENT, begin CPR immediately.

**Serious Ingestion:** Not available.

4.2 Most Important symptoms & efforts, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section no 3.3) or section 11.
4.3 **Indication of any immediate medical attention and special treatment needed**

No data available.

5.1 **General Information**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is noncombustible.

5.2 **Extinguishing Media**

Use agent most appropriate to extinguish fire.

Autoignition Temperature: Not available
Flash Point: -28 deg°C (-18.40 deg F)

Explosion Limits:
- Lower: Not available
- Upper: Not available

NFPA Rating: Not published

6.1 **Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7.1 Precautions for safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition. No smoking. Take measures to prevent the buildup of electrostatic charge.

7.2 Conditions for safe Storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 -8 °C
Light sensitive.

8.1 Control parameters

Components with workplace control Parameters.

8.2 Exposure controls

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protective Equipment:**

**Eyes:** Wear chemical goggles.

**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. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**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>Iodomethane</td>
<td>2ppm TWA; skin-potential for cutaneous absorption</td>
<td>2 ppm TWA; 10mg/m3 TWA 100 ppm IDLH</td>
<td>5ppm TWA; 28 mg/m3 TWA</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:**

Sodium Iodide: Iodomethane: 2 ppm TWA; 10 mg/m3 TWA

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**9.1 Information on Basic physical & chemical properties**

- **Physical State:** Liquid.
- **Appearance:** Colorless.
- **Odor:** Ethereal. Sweet. Pungent.
- **pH:** Not available.
- **Vapor Pressure:** 400mmHg @ 25 °C
- **Vapor Density:** 4.89
- **Evaporation Rate:** Not available.
- **Viscosity:** Not available.
- **Boiling Point:** 108 °F (42 °C)
- **Freezing/Melting Point:** -66.5 °C
Autoignition Temperature : Not applicable.
Flash Point : Not applicable.
Decomposition Temperature : 536 ºF (280 ºC)
Explosion Limits, Lower : Not available.
Upper : Not available.
Water Solubility : 2%
Specific Gravity/Density : 2.279 g/cm³
Molecular Formula : CH₃I
Molecular Weight : 141.95
Solvent Solubility : Alcohol, Benzene, Ether, Acetone, Carbon Tetrachloride.

9.2 Other safety Information

No data available

10.1 Reactivity

Stable at normal temperatures and pressure.

10.2 Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

10.3 Incompatibilities

Bases, metals, oxidizing materials, metal salts, combustible materials

10.4 Hazardous Decomposition

Thermal decomposition products: acid halides, iodinated compounds, oxides of carbon

10.5 Polymerization

Will not polymerize.
11.1. Information on toxicological effects

**Irritation Data:** 1 gm/10 minute(s) skin-human mild; 1 gm/30 minute(s) skin-rat mild; 500 mg skin-rabbit severe; 100 mg eyes-rabbit severe

**Toxicity Data:** 1300 mg/m3/4 hour(s) inhalation-rat LC50; 800 mg/kg skin-guinea pig LD50; 76 mg/kg oral-rat LD50 (IARC)

**Carcinogen Status:** IARC: Human No Adequate Data, Animal Limited Evidence, Group3; ACGIH: A4 -Not Classifiable as a Human Carcinogen (Iodides)

**Local Effects:** Irritant: inhalation, skin, eyes

**Acute Toxicity Level:** Toxic: inhalation, dermal absorption, ingestion

**Target Organs:** Central nervous system

**Medical Conditions Aggravated by Exposure:** hormonal disorders

**Tumogenic Data:** Available

**Mutagenic Data:** Available.

**Reproductive Effects Data:** Available

**Additional Data:** May cross the placenta. May be excreted in breast milk. May cross react with similar compounds.

12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence – degradability
Persistence – degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: Not established.

12.4. Mobility in soil

Mobility in soil: Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions: Avoid release to the environment.

13.1 Waste treatment methods

**Product**
Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**
Dispose of as unused product.

14.1. Land transport (ADR-RID)

Proper shipping name: METHYL IODIDE
UN No.: 2644
H.I. nr.: 66
ADR – Class: 6.1
ADR - Classification code : T1
ADR – Group : I
ADR - Packing instructions : P602
ADR - Limited Quantity : 0
ADR - Tunnel code: C/D : Tank carriage: Passage forbidden through tunnels category C, D and E.
Other carriage : Passage forbidden through tunnels of category D and E.

14.2 Sea transport (IMDG) [English only]

Proper shipping name : METHYL IODIDE
UN No: 2644
IMO-IMDG - Class or division: 6.1 : Toxic substances.
IMO-IMDG - Packing group : I
IMO- IMDG - Packing instructions : P001
IMO-IMDG - Limited quantities : None
IMO-IMDG - Marine pollution : No
EMS-Nr: F-A S-A

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

Full text of H-Statements referred to under sections 2 and 3.
Acute Tox. Acute toxicity
Carc. Carcinogenicity
H301 Toxic if swallowed.
H301 + H331 Toxic if swallowed or if inhaled
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
Resp. Sens. Respiratory sensitization
Skin Irrit. Skin irritation
Skin Sens. Skin sensitization
STOT SE Specific target organ toxicity - single exposure

Full text of R-phrases referred to under sections 2 and 3

T Toxic
R21 Harmful in contact with skin.
R23/25 Toxic by inhalation and if swallowed.
R37/38 Irritating to respiratory system and skin.
R40 Limited evidence of a carcinogenic effect

MSDS Creation Date: 01-01-2015
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