



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers	
i	Product Name : Methyl Iodide
ii	Chemical Formula : CH ₃ I
iii	CAS No. : 74-88-4
iv	EC No. : 200-819-5
v	HSN Code : 28276090
vi	Hazardous : Yes
vii	Content : Minimum 99.0%
viii	Appearance : Colorless liquid to pale yellow
1.2 Relevant identified uses of the substance	
i	Identified uses : Laboratory chemicals, Manufacture of substances
1.3 Details of Manufacturer	
i	Company : Samrat Pharmachem Limited
ii	Address : Plot No. A2/3444-3445, GIDC, Phase 4, Ankleshwar – 393002, Gujarat, India.
iii	Phone : +91-7045456789 / 7046456789
iv	Email : contact@samratpharmachem.in
v	Webpage : www.samratpharmachem.com
1.4 Emergency Number	
	Emergency Phone : +91-7045456789 / 7046456789




2. HAZARD IDENTIFICATION

2.1 Classification of substance			
i	H301	Acute Oral Toxicity	: Toxic if swallowed (Category 3)
ii	H312	Acute Dermal Toxicity	: Harmful; contact with skin (Category 4)
iii	H331	Acute Inhalation Toxicity	: Toxic if Inhaled (Category 3)
iv	H315	Skin Corrosion / Irritation	: Causes skin irritation (Category 2)
v	H319	Eye Irritation	: Causes serious eye irritation (Category 2)
vi	H335	Specific Target Organ Toxicity (Respiratory)	: May cause respiratory irritation; Single Exposure (Category 3)
vii	H351	Carcinogenicity	: Suspected of causing cancer(category 2)



Samrat Pharmachem Limited

Manufacturers & Exporters of Pharmaceutical Chemicals

2.2 GHS Label elements, including precautionary statements	
i	Pictogram : 
ii	Signal word : Danger
iii	Hazard Statement(s)
	H301 + H331 : Toxic if swallowed or if inhaled
	H312 : Harmful in contact with skin
	H315 : Causes skin irritation
	H319 : Causes serious eye irritation
	H335 : May cause respiratory irritation
	H351 : Suspected of causing cancer
iv	Precautionary Statement(s)
	P261 : Avoid breathing dust / fumes / gas / mist / vapours / spray
	P273 : Avoid release to the environment
	P280 : Wear protective clothing, gloves, eye & face equipment
	P284 : Wear respiratory protection.
	P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
	P311 : Call a POISON CENTER or doctor/ physician.
	P305 + P351 + P338 : IF IN EYES: Rise cautiously with water for several minutes. Remove contact lenses in present.
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS	
	No information available



3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances	
	Molecular Weight : 141.g/mol
	Constituent Elements : CH ₃ I



4. FIRST AID MEASURES

4.1 Symptoms	
i	Most important symptoms and effects, both acute and delayed
	Coughing and/ or wheezing. Difficulty in breathing. May cause redness and tearing of the eyes. Burning sensation.
ii	Indication of any immediate medical attention & special treatment needed
	If seeking medical attention, provide SDS document to physician.
4.2 Description of first aid measures	
i	Inhalation : If inhaled, move victim to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
ii	Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth out with water. If you feel still feel unwell, immediately make victim drink a slurry of activated charcoal in water (two glasses at most). Consult a doctor.
iii	Skin contact : Take off immediately all contaminated clothing. Wash skin with plenty of water. Cover the irritated skin with an emollient. If skin irritation occurs: Get medical advice/attention.
iv	Eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.



5. FIRE FIGHTING MEASURES

5.1 Extinguishing media	
i	Suitable extinguishing agents : Use dry chemical foam, CO ₂ or water spray extinguishing measures that are appropriate to local circumstances and the surrounding environment.
	Unsuitable extinguishing agents : Do not scatter spilled material with high pressure water streams.
ii	Special hazards arising from the substance or mixture : Carbon oxides, Hydrogen iodide, Not combustible. Ambient fire may liberate hazardous vapours. Thermal decomposition can lead to release of irritating gases and vapors.
iii	Special remarks on Explosion Hazard : Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
iv	Advice for firefighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
v	Additional information : Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.





6. ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment & emergency procedures
	Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Avoid breathing vapors, mist or gas.
6.2	Environmental precautions
	Do not flush to sewer. Eliminate source of the spill, wear protective clothing. Ventilate area with explosion proof apparatus.
6.3	Methods and material for containment and cleaning up
	Avoid breathing vapor. Dike and contain the spill with suitable absorbent (e.g. sand and silica). Transfer the liquid and the absorbent to separate containers for recovery or disposal. Scrub contaminated surface with detergent solution.
6.4	Reference to other sections
	For disposal see section 13



7. HANDLING AND STORAGE

7.1	Precautions for safe handling
	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. Do not breathe vapour or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product.
7.2	Conditions for safe storage, including any incompatibilities
	Keep in a tightly closed light-resistant container, stored in a cool, dry, ventilated area. Protect against physical damage. Wear special protective equipment for maintenance break-in or where exposures may exceed established exposure levels. Wash hands, face, forearms and neck when exiting restricted areas. Shower, dispose of outer clothing, change to clean garments at the end of the day. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Avoid breathing vapor and avoid contact with skin and eyes while handling. Wash all exposed skin with soap and water after handling. Launder the protective clothing before reuse.
7.3	Specific end use(s)
	The product has applications in the following industries such as methylation process, pharmaceuticals, pesticides and in the field of microscopy.





8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters	
	No data available
8.2 Exposure Controls	
i	<i>Appropriate engineering controls</i>
	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
ii	<i>Personal protective equipment</i>
(a)	<i>Eye / face protection</i>
	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
(b)	<i>Skin Protection</i>
	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
(c)	<i>Body Protection</i>
	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
(d)	<i>Respiratory protection</i>
	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
(e)	<i>Control of environmental exposure</i>
	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.





9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	Form: Liquid Colour: colourless	Flammability	Not determined
Odour	Pungent	Vapour pressure	408hPa
Odour threshold	0.85 ppm / 9 mg/m ³	Relative vapour density at 20°C	Not determined
pH-value	5.2	Relative density	Not determined
Melting/Freezing point	-66 °C / -86.8 °F	Solubility	Not determined
Boiling point	42.5 °C / 108.5 °F 760 mmHg	Partition coefficient (n-octanol/water)	Not determined
Flash Point	Not determined	Auto/Self-ignition temperature	Not determined
Evaporation rate	Not determined	Decomposition temperature	Not determined
Flammability	Not determined	Viscosity	Not determined
Density	2.28 g/cm ³ at 25 °C	Poison Class	Not determined



10. STABILITY & REACTIVITY

(a)	Reactivity	: Non-reactive under normal conditions.
(b)	Chemical stability	: If kept under long exposure to air the material shall evaporate releasing violet fumes. No decomposition if used and stored according to specifications.
(c)	Possible hazardous reactions	: Light Sensitive. It forms a violent reaction with oxygen at 300 to 500 C and with sodium (even in solution)
(d)	Conditions to avoid	: Avoid high temperatures exposure to direct sunlight, & avoid contact with incompatible materials
(e)	Incompatible material	: Strong oxidizing agents, Strong bases, oxygen, Metals
(f)	Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Burning may produce Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrogen iodide, toxic iodine vapours.





11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects			
	Oral	LD50 Rat	76 mg/kg
	Inhalation	LC50 Rat (Vapour)	1300 mg/m ³ , 4 Hours
	Oral	LDL Rabbit	70 mg/Kg
	Additional Information:	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.	
11.2 Corrosion Irritation			
	Serious eye damage / irritation		Causes serious eye irritation
	Respiratory or skin irritation		Lung irritation.
	Germ cell mutagenicity		No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
	Carcinogenicity		Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. This product is or contains a component that has been reported to be possibly carcinogenic.
	Reproductive Toxicity		This product is not expected to cause reproductive or developmental effects.
11.3 Additional information			
	No information available		



12. ECOLOGICAL INFORMATION

12.1 Toxicity		
No information available		
12.2 Persistence and degradability		
(a)	Persistence and degradability	Biodegradability
(b)	Biodegradation	The products of degradation are less toxic than the product itself.
12.3 Bio accumulative potential		
(a)	BCF – Other aquatic organisms	No information available
(b)	Partition coefficient n-octanol/water (Log Kow)	No information available
(c)	Bioaccumulative potential	No information available
12.4 Mobility in Soil		
(a)	Partition coefficient n-octanol/water (Log Pow)	No information available
12.5 Results of PBT and vPvB assessment		
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted		
s12.6 Other adverse effects		
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.		






13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal recommendation's	
i	General instructions
	This material, containers & non-recyclable solutions should be offered to a licensed disposal company. Dispose of contents/container in accordance with licensed collectors sorting instructions. Dispose in a safe manner in accordance with local/national regulations. Do not discharge into drains.
ii	Product / Packaging disposal recommendations
	Avoid release to the environment



14. TRANSPORT INFORMATION

14.1 In accordance with ADR / IMDG / IATA / ADN / RID					
	ADR	IMDG	IATA	ADN	RID
i	UN Number				
	UN 2644	UN 2644	UN 2644	UN 2644	UN 2644
ii	UN proper shipping name				
	Methyl iodide	Methyl iodide	Methyl iodide	Methyl iodide	Methyl iodide
iii	Transport hazard class				
	6.1	6.1	6.1	6.1	6.1
iv	Hazardous class symbols				
					
v	Packing group				
	I	I	I	I	I
vi	Environment hazards: Dangerous for the environment				
	Yes	Yes	Yes	Yes	Yes
vii	Marine Pollutant				
	Not applicable	Yes	Not applicable	Not applicable	Not applicable



15. REGULATORY INFORMATION

15.1 Regulations	
i	Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.
ii	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substance: ACUTE TOXIC



16. OTHER INFORMATION

16.1 NFPA Rating										
i	Health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.								
ii	Fire hazard	: 1 - Materials that will not burn under typical dire conditions, including intrinsically non-combustible materials such as concrete, stone, and sand.								
iii	Reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.								
16.2 HMIS Rating		<table border="1"> <tr> <td>Health</td> <td align="right">2</td> </tr> <tr> <td>Fire</td> <td align="right">1</td> </tr> <tr> <td>Reactivity</td> <td align="right">0</td> </tr> <tr> <td>Personal Protection</td> <td align="right">H</td> </tr> </table>	Health	2	Fire	1	Reactivity	0	Personal Protection	H
Health	2									
Fire	1									
Reactivity	0									
Personal Protection	H									
i	Health	: 2 - Moderate Hazard - Temporary or minor injury may occur								
ii	Flammability	: 1 - Minimal Hazard - Materials that will not burn								
iii	Physical	: 0 - Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.								
vi	Personal Protection	: H - Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.								
16.3 Further Information										
	The above information is derived from the available literature & believed to be correct but may not be complete & conclusive. The company shall not be responsible for any damage resulting from handling or usage of the product. The information shall be used only as a guide.									

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