


MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

<p>PRODUCT NAME: Hydriodic Acid 55-58% (unstabilized or stabilized with 1.5 MAX H₃PO₂). Hydrogen Iodide in Water , Azeotrope</p> <p>GENERAL USE: Reducing agent, manufacture of inorganic iodides, pharmaceuticals, disinfectants. The 57% acid is also used for analytical purposes, such as methoxyl determinations.</p> <p>PRODUCT DESCRIPTION: Colorless to Yellow fuming clear liquid (stabilized). Yellow to light red fuming clear liquid (unstabilized)</p>	
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Manufacturers Name: Iofina Chemical	DATE PREPARED: 01/11/2008 SUPERSEDES: 05/11/2007	Page 1 of 4
ADDRESS (NUMBER, STREET, P.O. BOX) 1025 Mary Laidley Drive	TELEPHONE NUMBER FOR INFORMATION / customer service 1-859-356-8000	
(CITY, STATE AND ZIP CODE) COUNTRY Covington, KY 41017 USA	CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER North America: 1-800-255-3924 International: +01-813-248-0585	
DISTRIBUTOR'S NAME Not Applicable		
ADDRESS (NUMBER, STREET, P.O. BOX)	TELEPHONE NUMBER FOR INFORMATION / customer service	
(CITY, STATE AND ZIP CODE) COUNTRY	DISTRIBUTOR EMERGENCY TELEPHONE NUMBER	

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 16)
Hydriodic Acid	55-58%	10034-85-2	233-109-9	+C: Corrosive	R-20/21/22 R-34
Phosphinic Acid (Hypophosphorous Acid)	≤1.5%	6303-21-5	228-601-5	+C: Corrosive	R-34

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
 This product MAY BE FATAL IF SWALLOWED OR INHALED. VAPORS CAUSE SEVERE IRRITATION TO SKIN, EYES, RESPIRATORY TRACT and mucous membranes and could cause severe burns to these tissues. Upon heating, toxic fumes are formed. Reacts violently with metal powders, antimony, ammonia, acetaldehyde, acetylene causing fire and explosion hazard. Prolonged exposure to iodides may produce **iodism** in sensitive individuals. Symptoms of **iodism** exposure include: skin rash, running nose, headache and irritation of the mucous membrane. For severe cases the skin may show pimples, boils, hives, blisters, and black and blue spots. Iodides are readily diffused across the placenta. Neonatal deaths from respiratory distress secondary to goiter have been reported. Iodides have been known to cause drug-induced fevers, which are usually of short duration. Always avoid contact with skin, eyes and mucous membranes.

POTENTIAL HEALTH EFFECTS

INHALATION: Inhalation may produce dyspnea, pleuritic chest pain, upper airway edema, pulmonary edema, hypoxemia, bronchospasm, pneumonitis, and persistent pulmonary function abnormalities. Airway hyperactivity has also been reported.




SKIN: Contact with substance may cause severe burns to skin and eyes. See Inhalation.

EYES: May cause severe burns to eyes.

INGESTION: Ingestion of acids may result in burns, gastrointestinal bleeding, gastritis, perforations, dilation, edema, necrosis, vomiting, stenosis, fistula, and duodenal/jejunal injury.

CARCINOGENICITY	NTP? NO Cal. Prop. 65? NO	IARC MONOGRAPHS? NO	OSHA REGULATED? NO
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MATERIAL SAFETY DATA SHEET		Page 3 of 4	
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PERSONAL PROTECTION			
RESPIRATORY PROTECTION: Wear positive pressure self-contained breathing apparatus or a half face vapor mask and /or use a mechanical fume hood.			
PROTECTIVE GLOVES: Wear chemically impervious gloves, neoprene or rubber. An apron is also required.			
EYE PROTECTION: Wear chemically protective splash goggles and /or a full face shield.			
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear positive pressure self-contained breathing apparatus. Wear appropriate chemical protective clothing. Selection should follow the OSHA Personal Protective Equipment Standard 29 CFR 1910 subpart 1 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.			
WORK / HYGIENIC PRACTICES: Handle in accordance with good industrial hygiene practices. Wash hands frequently and at the end of the work day.			
SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES			
APPEARANCE AND ODOR Colorless to Yellow fuming clear liquid (stabilized). Yellow to light red fuming clear liquid (unstabilized). With a pungent acrid odor.		VAPOR PRESSURE NA	
pH <1.0		SPECIFIC GRAVITY (WATER = 1) 1.66-1.72@20°C	
BOILING POINT / BOILING RANGE <127°C		SOLUBILITY IN WATER Complete	
FLASH POINT NA		VISCOSITY NA	
FLAMMABLE LIMITS LEL: NA UEL: NA		VAPOR DENSITY (AIR = 1) NA	
AUTOIGNITION TEMPERATURE NA		EVAPORATION RATE (WATER = 1) NA	
SECTION 10 - STABILITY AND REACTIVITY			
STABILITY UNSTABLE: Stable X Darkens on exposure to light.		CONDITIONS TO AVOID: Unstabilized material is air sensitive and darkens on exposure to light and air.	
INCOMPATIBILITY (MATERIALS TO AVOID): Reacts rapidly and exothermically with bases Reacts with active metals in the presence of moisture, including such structural metals as aluminum and iron, to release hydrogen, a flammable gas Reacts with cyanide compounds to release gaseous hydrogen cyanide Reacts with oxidizing agents to give iodine (when passed through fuming nitric acid, each bubble produces iodine attended by a flash of red flame.			
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Iodine fumes, Hydriodic Acid vapors, Hydrogen Iodide gas.			
HAZARDOUS POLYMERIZATION Will not occur.		CONDITIONS TO AVOID: Unstabilized material is air sensitive and darkens on exposure to light and air.	
SECTION 11 - TOXICOLOGICAL INFORMATION			
Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Hydriodic Acid	10034-85-2 233-109-9	0.1 ppm oral (Rat) May affect functioning of thyroid.	0.1ppm inhalation (Species not specified).
Phosphinic Acid (Hypophosphorus Acid)	6303-21-5 228-601-5	NA	NA
SECTION 12 - ECOLOGICAL INFORMATION			
Do not allow product to reach ground water, watercourse or sewage system. Danger to drinking water if even small quantities leak into ground water. Do not allow material to be released to the environment with out proper governmental permits. Environmental fate: Unknown			
SECTION 13 - DISPOSAL CONSIDERATIONS			
WASTE DISPOSAL METHOD: Ensure that collection, transport, treatment, and disposal of waste product, containers and rinsate complies with all applicable laws and regulations. It is the responsibility of the product user or owner to determine at the time of disposal, whether the product is regulated as a hazardous waste.			

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SECTION 14 - TRANSPORT INFORMATION			
PROPER SHIPPING NAME: Hydriodic Acid DOT HAZARD CLASS / Pack Group:8/PGII REFERENCE: 49 CFR UN / NA IDENTIFICATION NUMBER: UN-1787 LABEL: Corrosive HAZARD SYMBOLS:		IATA HAZARD CLASS / Pack Group: Class 8/PG II IMDG HAZARD CLASS: Class 8 RID/ADR Dangerous Goods Code:60 UN TDG Class / Pack Group:UN1787 ,8,PGII Hazard Identification Number (HIN):80	
			
Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.			
SECTION 15 - REGULATORY INFORMATION			
TSCA (USA - Toxic Substance Control Act) Listed SARA TITLE III (USA - Superfund Amendments and Reauthorization Act) Not Reportable 313 REPORTABLE INGREDIENTS: Not Reportable. CERCLA (USA - Comprehensive Response Compensation and Liability Act) RQ=None California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986 Not Listed CPR (Canadian Controlled Products Regulations) Listed IDL (Canadian Ingredient Disclosure List) Listed DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List) Listed EINECS (European Inventory of Existing Commercial Chemical Substances) Listed WGK Water Quality Index: Unknown			
RISK PHRASES:	SYMBOL(S) REQUIRED FOR EU LABEL	SAFETY PHRASES:	
+R34: Causes Burns	 +C :Corrosive	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36,37,39: Wear suitable protective clothing, gloves and eye/face protection. S45: In case of accident or if you feel unwell, seek medical advice immediately(show the label where possible).	
SECTION 16 - OTHER INFORMATION			
HMIS HAZARD RATINGS	HEALTH:	3	0 = INSIGNIFICANT
	FLAMMABILITY:	0	1 = SLIGHT
	REACTIVITY:	1	2 = MODERATE
	PERSONAL PROTECTIVE EQUIPMENT:	H	3 = HIGH
			4 = EXTREME
REVISION SUMMARY: Revision 01/112008 includes E.U. hazards information and supersedes previous 05/11/2007 issue.			
MSDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com			
The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.			

