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MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: CHLOROACETIC ACID

CAS Number: 79-11-8

1. IDENTIFICATION:		
Product Code	90364, 98373	
Company Name	ADVENT CHEMBIO PRIVATE LIMITED	
Address	W-279, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR ROAD, RABALE, NAVI MUMBAI - 400 701, MAHARASHTRA, INDIA.	
E-mail	sales@adventchembio.com	
WEBSITE	www.adventchembio.com	
Company Phone Number	<u>+91 77770 84837</u>	

2. HAZARDS IDENTIFICATION:

Hazard classification		
Health hazards		
Acute toxicity, Oral	Category 4	
Acute toxicity, Dermal	Category 4	
Acute toxicity, Inhalation	Category 2	
Skin corrosion	Category 2	
Serious eye damage	Category 1	
Specific target organ toxicity – single exposure,	Category 2	
Short-term (acute) aquatic hazard	Category 1	
Labels elements		
Hazard symbol		
Signal word	Danger	
Hazard statement	Toxic if swallowed or in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause respiratory irritation. Very toxic to aquatic life.	
Precautionary statement		
Prevention	Obtain special instructions before use. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all precautions have been read and understood. Wear protective gloves/ protective clothing/ eye protection/ face protection. Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. Keep container tightly closed. Ground/ bond container and receiving equipment.	safety



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Response	:	Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. IF exposed or concerned: Get medical advice/ attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Storage	:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are
		opened must be carefully resealed and kept upright to prevent leakage.
Disposal	:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Rapidly absorbed through skin.

3. COMPOSITION/ INFORMATION ON INGRADIENTS:			
Ingredient	CAS Number	Percent	Hazardous
Chloroacetic Acid	79-11-8	NLT 99.0%	Yes

4. FIRST AID MEASURES:

General information	: Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
Ingestion	 Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Inhalation	 Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms persist.
Skin contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
Most important symptoms/effects, acute and delayed	Toxic if inhaled. Toxic if swallowed. Toxic in contact with skin. Irritating to eyes, respiratory system and skin.
Indication of immediate medical attention and special treatment needed	: Symptoms may be delayed. Treat symptomatically.

5. FIRE FIGHTING MEASURES:

General information

: No data available.



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Suitable extinguishing media	:	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	:	For this substance/mixture no limitations of extinguishing agents are given.
Specific hazards arising from the chemical	:	Carbon oxides Hydrogen chloride gas Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapors possible in the event of fire.
Special protective equipmen	it an	d precautions for firefighters
Special firefighting procedures	:	Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.
Special protective equipment for fire-fighters	:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures	 ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
Methods and material for containment and cleaning up	 Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.
Notification Procedures	Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.
Environmental precautions	Do not contaminate water sources or sewer. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE:

Precautions for safe handling	Do not handle until all safety precautions have been read and understood. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry, well-ventilated place.



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8. EXPOSURE CONTROLS	PERSONAL PROTECTION:
Control parameters	
Appropriate engineering	
controls	: No data available
Individual protection meas	ures, such as personal protective equipment
General information Eye/face protection	 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 recommendee exposure limits. If exposure limits have not been established, maintain airborne levels to a acceptable level. An eye wash and safety shower must be available in the immediate wor area. Use explosion-proof ventilation equipment. Wear safety glasses with side shields (or goggles).
Hand protection	Chemical resistant gloves.
Other	Wear suitable protective clothing.
Respiratory protection	In case of inadequate ventilation use suitable respirator.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing an protective equipment to remove contaminants. Provide eyewash station and safety showe Avoid contact with eyes, skin, and clothing.
9. PHYSICAL AND CHEMIC	CAL PROPERTIES:
Appearance	: Colourless, deliquescent crystals.
Odor	: No data available.
Solubility	: 1.000 g/l at 20 °C Miscible
Formula	: C ₂ H ₃ ClO ₂
Molecular Weight	: 94.5 g/mol
Specific Gravity	: 1.64 g/cm3 at 20°C
рН	: < 1,0 at 800 g/l at 20 °C
% Volatiles by volume @ 21C (70F)	: No data available.
Boiling Point	: 189°C
Melting Point	: 60 - 63°C
Flash Point	: 126 °C
Vapor Density (Air=1)	: No data available.
Vapor Pressure (mm Hg)	: 0,0213 hPa at 20 °C



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Evaporation Rate (BuAc=1) : No data available.

10. STABILITY AND REACTIVITY:		
Reactivity	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.	
Chemical stability	Material is stable under ambient conditions	
Possibility of hazardous reactions	Generates dangerous gases or fumes in contact with: sodium carbonate calcium carbonate Potassium carbonate Sulfides Metals Exothermic reaction with: Amines bases Reducing agents Strong oxidizing agents Sulfides hydrogen peroxide Risk of explosion with: furfuryl alcohol hydrogen peroxide.	
Conditions to avoid	: Heat, sparks, flames. Sunlight.	
Incompatible materials	Strong oxidizing agents. Acetaldehyde. Acids. Chlorine. Ethylene Oxide Hydrogen peroxide (H2O2) Sulfuric acid. Isocyanates. Aluminum.	
Hazardous decomposition products	In the event of fire: see section 5	

11. TOXICOLOGICAL INFOR	MATION:
Information on likely routes	s of exposure
Ingestion	: Irritating. May cause nausea, stomach pain and vomiting.
Inhalation	May cause irritation to the mucous membranes and upper respiratory tract. May cause central nervous system effects
Skin contact	: Causes mild skin irritation
Eye contact	: Causes serious eye irritation.
Information on toxicologica	l effects
Acute toxicity (list all possib	le routes of exposure)
Oral Product	: LD 50 Rat - female – 90.4 mg/kg.
Dermal Product	: LD 50 Rat - female - 305 mg/kg
Inhalation Product	$_{\rm H}$ LD 50 Rat - male and female - 4 h - > 1,268 mg/l.
Repeated dose toxicity Product	: No data available.
Skin corrosion/irritation Product	: skin contact may cause drying, cracking, or irritation
Serious eye damage/eye irritation Product	: Irritating to eyes.
Respiratory or skin sensitization Product	: Not a skin sensitizer.



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Carcinogenicity Product	:	This substance has no evidence of carcinogenic properties
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	:	No carcinogenic components identified.
US. National Toxicology Program (NTP) Report on Carcinogens	:	No carcinogenic components identified.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050	:	No carcinogenic components identified.
Germ cell mutagenicity		
In vitro Product	:	No data available.
Reproductive toxicity Product	:	No components toxic to reproduction.
Specific target organ toxicity - single exposure Product	:	May cause respiratory irritation Respiratory Tract.
Specific target organ toxicity - repeated exposure Product	:	None known.
Aspiration hazard Product	:	No data available.
Other effects	:	No data available.
12. ECOLOGICAL INFORMATION:		
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Ecotoxicity

Acute hazards to the aquatic environment

Fish Product	:	LC50 - Poecilia reticulata (guppy) - 369 mg/l
Aquatic invertebrates Product Chronic hazards to the aqua	: itic e	EC50 - Daphnia magna (Water flea) - 74,2 mg/l nvironment
Fish Product	:	No data available.
Aquatic invertebrates Product	:	No data available.
Toxicity to Aquatic Plants Product:	:	No data available.
Persistence and degradabili	ty	
Biodegradation Product	:	69 % - Readily biodegradable.
BOD/COD ratio Product	:	No data available.
Bioaccumulative potential		



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Bioconcentration factor (BCF) Product	: No	data available o	on bioaccumulation			
Partition coefficient n- octanol / water (log Kow) Product	: No	data available.				
Mobility in soil	: No	data available.				
Other adverse effects	: No	data available.				
	ION:					
13. DISPOSAL CONSIDERAL	-					
	: Dis	•	ent, or disposal ma are based on uncor			cal laws. Dispo
Disposal instructions	: Dis rec Sir	commendations	ent, or disposal ma are based on uncor tainers retain produ	ntaminated materia	l.	
Disposal instructions Contaminated packaging	: Dis rec Sir : is e	commendations ice emptied con	are based on uncor	ntaminated materia	l.	
Disposal instructions Contaminated packaging	: Dis rec Sir : is e	commendations ice emptied con emptied.	are based on uncor tainers retain produ	itaminated materia uct residue, follow l Hazard	l. abel warnings eve Packaging	
Disposal instructions Contaminated packaging 14. TRANSPORT INFORMA	: Dis rec Sir : is e TION:	commendations ice emptied con emptied. 0. UN pi name	are based on uncor tainers retain produ	itaminated materia uct residue, follow l	l. label warnings eve	n after contain
13. DISPOSAL CONSIDERAT Disposal instructions Contaminated packaging 14. TRANSPORT INFORMA DOT IMDG	: Dis rec Sir : is c TION: UN No	commendations lice emptied con emptied. b. UN pr name 51 Chlor	are based on uncor tainers retain produ	taminated materia uct residue, follow l Hazard Class(es)	l. abel warnings eve Packaging group	n after contain Marine Pollutant

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. Safety, health and environmental regulations/legislation specific for the substance or mixture No Data Available.



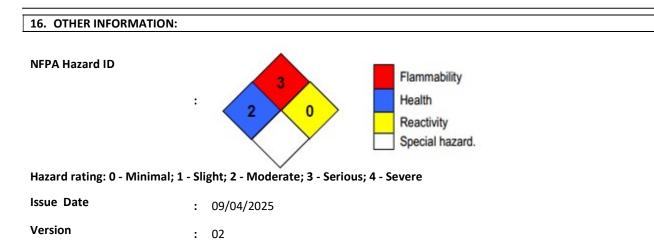
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