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**MATERIAL SAFETY DATA SHEET**

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**SECTION 1 – CHEMICAL NATURE**

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PRODUCT : Chlorpropham 50 HN – Herbicide and Plant growth regulator  
CHEMICAL NAME : isopropyl 3- chlorocarbamate  
CHEMICAL FAMILY : Carbamate  
CHEMICAL FORMULA : C<sub>10</sub>H<sub>12</sub>ClNO<sub>2</sub>  
MOLECULAR WEIGHT : 213.3

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**SECTION 2 – COMPOSITION, INFORMATION OF INGREDIENTS COMPONENT**

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	Percent Purity	CAS NO.	OSHO PEL	ACIGH TLV
CHLORPROPHAM	50 % A.I.	101-21-3	not listed	not listed
Other ingredients like Emulsifiers & solvents	50%			

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**SECTION 3 – HAZARDS IDENTIFICATION SUMMARY**

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**Emergency Overview**

Tan mobile liquid with aromatic solvent odor.

Combustible liquid.

Will cause skin and eye irritation.

Keep away from drains and water sources.

**Potential Health Hazards:**

Harmful if inhaled or swallowed. Dust ,mist or vapor irritating to eyes and respiratory tract. May cause skin irritation.

May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.

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## SECTION 4 – FIRST AID MEASURES

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**IF INHALED :** Remove person from exposure area to fresh air. Give artificial respiration, preferably mouth to mouth. If not breathing difficulty or discomfort occurs or persists get medical attention.

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**IF ON SKIN :** Take off contaminated clothing. Wash skin with plenty of soap and water.

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**IF SWALLOWED :** Do not induce vomiting unless told to do so. Immediately contact physician, Poison Control or an emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person.

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**IF IN EYES :** Hold eye open and rinse with plenty of water for 15 to 20 minutes. If irritation continues, call a doctor.

**ANTIDOTE :** Give symptomatic treatment as per symptoms and cause.

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## SECTION 5 – FIRE FIGHTING MEASURES

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**FLASH POINT** - >62°C

**EXTINGUISHING MEDIA :** Use dry chemicals. Foam, CO<sub>2</sub> or dry chemical. Soft stream of water fog only if needed.

**FIRE AND EXPLOSION HAZARD:** Vapors of aromatic solvents. Oxides of carbon and nitrogen, Traces of Hydrochloric acid.

**FIRE FIGHTING EQUIPMENT:** Vapors may be toxic. Wear self-contained breathing apparatus pressure and protective gear. Do not allow contaminated runoff to enter drains.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

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Clean up spills immediately, observing precautions. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Vacuum or sweep up material and place in properly labeled disposal container. Dike to confine spill and absorb with non-combustible absorbent like clay, sand or soil. Vacuum shovel or pump waste into drum and label contents for disposal. Large spills may be neutralized with dilute solutions of soda ash or with appropriate alcohol. After removal, flush contaminated area thoroughly with water. Do not allow any material to run off in soil, drainage systems or bodies of water. Notify and consult with proper regulatory authorities.

## SECTION 7 – HANDLING AND STORAGE

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**GENERAL PROCEDURES :** Store in a cool dry , well ventilated place in original container away from children and animals. Keep away from food, animal feed , other pesticides fertilizers and drinking water. Prevent eating,drinking tobacco use and cosmetic application in areas where there is a potential for exposure to the material.

## SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

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**ENGINEERING CONTROL:** Use local exhaust ventilation at all processes locations where vapor or mist may be emitted. Ventilate all transport vehicles prior to unloading.

**PERSONAL PROTECTIVE EQUIPMENT:**

**EYE AND FACE PROTECTION -** Safety goggles or face shield. Storing facility should be equipped with eye wash facility and safety shower.

**CLOTHING –** Long sleeved shirt and long pants, shoes plus socks, chemical resistant headgear for overhead exposures.

**GLOVES –** Wear waterproof gloves.

**USER SAFETY RECOMMENDATIONS –** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside . Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible , wash thoroughly and change in to clean clothing.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL DESCRIPTION:** Tan mobile liquid .

**ODOR:** Aromatic solvent odor

**CHEMICAL FORMULA :**  $C_{10}H_{12}ClNO_2$

**MOLECULAR WEIGHT :** 213.7

**MELTING POINT:** Not applicable

**DENSITY:** 1.004(20 °C)

**BOILING POINT :** 184 °C

**FLASH POINT :** >62 °C

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## SECTION 10 – STABILITY AND REACTIVITY

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**CHEMICAL STABILITY:** Stable

**CONDITIONS TO AVOID:** Avoid heating product above 60 °C.

**MATERIALS TO AVOID :** Strong oxidizing agents

**HAZARDOUS POLYMERISATION:.** Vapors of aromatic solvents .Oxides of carbon and nitrogen, Traces of Hydrochloric acid.

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## SECTION 11 – TOXICOLOGICAL INFORMATION (Technical )

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<b>ACUTE TOXICITY</b>	: Oral LD <sub>50</sub> (rat)	– 1200 mg/kg body weight
	Dermal LD <sub>50</sub> (rat)	- >15,000mg/kg body weight
	Inhalation LC <sub>50</sub> (rat)	- 32mg/l (4 hr)
	Eye Irritation (rabbit)	– Irritant
	Skin Irritation (rabbit)	– Irritant

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## SECTION 12 – ECOLOGICAL INFORMATION

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### Environmental Summary –

Lc 50 acute oral for rainbow trout is 3-7 ppm

Not toxic to birds

Toxic to Earthworms

Not toxic to bees

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## SECTION 13 – DISPOSAL CONSIDERATIONS

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**Waste** – Dispose of in accordance with applicable Federal, State, local laws and regulations.

**Container** – Do not re-use the container. Dispose of empty containers in a sanitary landfill or incineration so as to avoid environmental or water pollution.

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## SECTION 14 – TRANSPORT INFORMATION

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1 – Do not load on freight container with oxidizing agents or organic peroxide.

2 – Goods may be loaded in the same freight container or on the same vehicle if transported in segregation devices with oxidizing agents or organic peroxide.