



SAFETY DATA SHEET (SDS)

Name of chemical : Chlorothalonil 75 % WP

1. PRODUCT IDENTIFICATION / COMPANY ADDRESS

Trade Name	NA	Common Name	Chlorothalonil 75 WP.	Synonyms	Chlorothalonil 75 WP.
Company Name / Address / Phone / Fax	BR Agrotech Limited 620/3, Panoli GIDC, Ankleshwar, Bharuch, Gujarat 394115. India Tel-91-11-43661111, Fax-91-11-43661100 Emergency contact +91 11 43661111				
Chemical Name	Tetrachloroisophthalonitrile				

2. HAZARD IDENTIFICATION

Hazard Classification	Acute toxicity, Inhalation (Category 2), H330 Serious eye damage (Category 1), H318 Skin sensitisation (Category 1), H335 Acute aquatic toxicity (Category 1), H400 Chronic aquatic toxicity (Category 1),
LABEL ELEMENTS	<u>HAZARD PICTOGRAMS.</u> GHS07 GHS09
Signal word (GHS-US)	Danger

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HAZARD STATEMENT	<p>H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H330 Fatal if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H410 Very toxic to aquatic life with long lasting effects.</p>
PRECAUTIONARY STATEMENT	<p>P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes.</p>

3. COMPOSITION / INFORMATION AND INGREDIENTS

Structural Formula			Chemical Family	Chloronitrile.
			Molecular weight	265.9
CAS No	1897-45-6		Molecular Formula	C ₈ Cl ₄ N ₂
Name	Product identifier	%	GHS-US classification	
Chlorothalonil	1897-45-6	75-77	Acute Tox. 2; Eye Dam. 1; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1;	
Adjuvant	NA	24-26	Inert material.	

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4. FIRST AID MEASURE

Ingestion	Rinse mouth with water. Do not induce vomiting. Keep patient at rest and Seek medical attention.
Inhalation	Remove person from exposure area to fresh air, Keep patient at most comfort level and keep warm. Get medical attention.
Eyes	Wash eyes with fresh water for 15 minutes. If irritation continues, see a doctor.
Skin	Remove contaminated clothing and wash skin with plenty of soap and water.
Antidote	No specific antidote known. Treat symptomatically
Most important symptoms/ effects, acute and or delayed	NA
Indication of immediate medical attention and special treatment needed	There is no specific antidote. Treat symptomatically and supportively in response to Reactions from patient.

5. FIRE FIGHTING MEASURES

Fire extinguishing media	Use foam, Water fog/water spray, dry agents (Carbon dioxide, dry chemical powder).
Hazardous decomposition products	In a fire, formation of hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides can be expected
Special firefighting procedure	Response to this material requires the use of a full encapsulated suit and self-contained breathing apparatus. Use water to cool containers.
Precaution to Fire Fighters	Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precaution	Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Precautions for the environment	Keep out of lakes, streams of ponds. Do not contaminate waterways by cleaning of equipment or by disposal of wastes.
Clean up method	Clean up spills immediately. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into compatible disposal container.

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7. HANDLING AND STORAGE

General precaution	General- Do not smoke, drink or eat during handling. Avoid inhalation and skin contact while diluting because of spillage or splashes. Do not mix with bare hand. The users should use full protective clothing which includes rubber gloves, rubber boots. Face should be covered with dust mask or respirator and an overall or rubber apron hood or hat. Specific conditions: Good local exhaust ventilation. Full face protective mask.
Personal protection	Use only in well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues..
Storage	Store in a cool dry place in original container and protect from sunlight. Keep away from food, animal feed and drinking water.
Incompatibilities	Cyanides

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Personal protection 			
Skin	Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.	Eyes	Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Respiration	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits.	Other	Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
Exposure limits			
TLV-TWA	NA	TLV-STEL	NA
Appropriate Engineering Control	Good general ventilation should be sufficient for most Conditions. Local exhaust ventilation may be necessary for Some operations.		

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White to grey powder	Molecular Weight	265.9	Specific gravity	NA
Odour/Odor threshold	Slight odour	Flash Point °C	NA	pH/ Acidity	NA
Auto Ignition Temp. °C	NA	Boiling Point °C @ 760 mm Hg	NA	Melting Point °C	NA
Vapor Press. Mm Hg @ 23 °C(Tech)	0.076 mPa (25°C)	Vapour Density	NA	Water Solubility @ 20 °C	Forms a suspension
LEL %	NA	UEL %	NA	% Volatile	NA
Evaporation rate	NA	Viscosity @ 25 °C	NA	PH	NA
Octanol / Water Partition Coefficient			NA		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal use and conditions.	Possibility of Hazardous reaction	Will not occur
Hazardous Reactions/ Decomposition products	Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, Nitrogen oxides.	Incompatible Materials	cyanides
Condition to avoid	Excessive heat		

11. TOXICOLOGICAL INFORMATION

Routes of exposure	Inhalation, skin, eyes, ingestion				
LD50 (oral / rats) mg/kg (For Technical)	> 2500	LD50 (dermal/ rats) mg/kg (For Technical)	> 2500	LC50 (inhalation / rats) mg/L air (4h) (For Technical)	> 0.1
Target Organ Effects	Respiratory system				
Symptoms related to physical, chemical & toxicological characteristics	Skin and upper respiratory tract irritation.				

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12. ECOLOGICAL INFORMATION

Mobility in Soil	Low mobility to immobile. In aerobic and anaerobic soil studies, DT50 is 0.3-28 d (20 °C). Stable to hydrolysis. Degradation is faster in biotic aquatic systems.
Persistence and degradability	Degradation is faster in biotic aquatic systems.
Bioaccumulative Potential	Oncorhynchus mykiss (rainbow trout) - 96 h - 10 µg/l(Chlorothalonil)-(Aldrich)
Effects on fish	Acute LC50s (96 h) for rainbow trout 47 µg/L, bluegill sunfish 60 µg/L.
Effects on birds	Acute oral LD50 for mallard duck > 2000 mg/kg.
Effects on bees	Acute LD50 (oral) > 100 µg/bee, (contact) > 100 µg/bee

13. DISPOSAL CONSIDERATIONS

Dispose of empty containers in accordance with local regulations. Consult provincial environment ministry for advice on waste disposal. Industrial/commercial waste may be handled at licensed facilities only. Waste shipments must be securely packaged and properly labelled.

14. TRANSPORT INFORMATION

UN No.	3077	IMDG No.	6021
Shipping Name	Environmentally hazardous substance, solid, n.o.s.(Chlorothalonil 75WP)	Hazard class	6.1
Packing group	III	Hazard Sub class	NA
Marine Pollutant	Yes	Labels required	Xn, Xi,N
Warning Statement	Keep away from foodstuffs, children, heat/flames & destroy empty container after use		
Packaging / Precaution	MS Drum.250/500 gram printed Trilaminat pouches.25/50 kg poly lined printed HDPE bags in drums.		
Shipping Marking	Environmentally hazardous substance, solid, n.o.s.(Chlorothalonil 75WP)		

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15. REGULATORY INFORMATION

LABELING:

SYMBOLS: Xn, Xi, N PHRASES

R:

R20 Harmful by inhalation.

R36/37 Irritating to the respiratory system and eyes.

R40 Limited evidence of a carcinogenic effect.

R43 May cause sensitisation by skin contact.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

PHRASES S:

S2 Keep out of the reach of children.

S13 Keep away from food, drink and animal feeding stuffs.

S20/21 When using do not eat, drink or smoke.

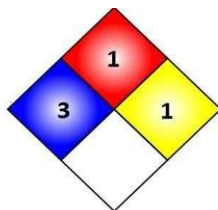
S35 This material and its container must be disposed of in a safe way.

S36/37 Wear suitable protective clothing and gloves.

S57 Use appropriate containment to avoid environmental contamination.

16. OTHER INFORMATION

NFPA Rating :



The information provided in this Material Safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with other materials

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