

## CHLORO MAXX 90

### MATERIAL SAFETY DATA SHEET (MSDS)

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Product name : CHLORO MAXX 90  
Product code : NXP90

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. For Pool and Spa

##### 1.3. Details of the supplier of the safety data sheet

**ZYAX CHEM PVT LTD**  
3rd Floor, Kamer Building,  
38 Cawasji Patel Street, Fort,  
Mumbai - 400001, India.  
Contact No: +91 8779240420  
info@zyax.in - www.zyax.in

##### 1.4. Emergency telephone number

Emergency number : +91 22 2757 3899

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Oxidizing solids Category 2 (H272)

Health hazards

Acute oral toxicity Category 4 (H302)  
Serious Eye Damage/Eye Irritation Category 2 (H319)  
Specific target organ toxicity - (single exposure) Category 3 (H335)

Environmental hazards

Acute aquatic toxicity Category 1 (H400)  
Chronic aquatic toxicity Category 1 (H410)

Full text of Hazard Statements: see section 16

##### 2.2. Label elements



Signal Word

Danger

Hazard Statements	H272 - May intensify fire; oxidizer
	H302 - Harmful if swallowed
	H319 - Causes serious eye irritation
	H335 - May cause respiratory irritation
	H410 - Very toxic to aquatic life with long lasting effects
	EUH031 - Contact with acids liberates toxic gas
Precautionary Statements	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
	P233 - Keep container tightly closed
	P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
	P273 - Avoid release to the environment
	P280 - Wear protective gloves/protective clothing/eye protection/face protection
	P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

### 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

Toxicity to Soil Dwelling Organisms

Toxic to terrestrial vertebrates

## SECTION 3: Composition/information On Ingredients

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Trichloro-S-triazinetriene	87-90-1 / EEC No. 201-782-8	97	Ox. Sol. 2 (H272) Acute Tox. 4 (H302) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) [EUH031]
Trichloro-S-triazinetriene	-	10	-

Full text of H-statements: see section 16

## SECTION 4: First Aid Measures

### 4.1. Description of first aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention. Take off contaminated clothing and shoes immediately.
Ingestion	Clean mouth with water. Get medical attention.
Inhalation	Remove from exposure, lie down. Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Self-Protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**4.2. Most important symptoms and effects, both acute and delayed**

No additional information available

**4.3. Indication of any immediate medical attention and special treatment needed**

Notes to Physician

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Suitable extinguishing media : Water spray, Carbon dioxide (CO<sub>2</sub>), Dry chemical, Chemical foam.

Extinguishing media which must not be used for safety reasons : No information available.

**5.2. Special hazards arising from the substance or mixture**

Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.). Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Hydrogen chloride gas.

**5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

**6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

**6.3. Methods and material for containment and cleaning up**

Sweep up and shovel into suitable containers for disposal. Do not let this chemical enter the environment. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

**6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

**Section 7: Handling And Storage****7.1. Precautions for safe handling**

Avoid contact with skin and eyes. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from clothing and other combustible materials.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store near combustible materials.

Store under an inert atmosphere.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Control parameters

#### Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

#### Derived No Effect Level (DNEL)

No information available

#### Route of exposure Acute effects

Acute effects

Chronic effects

Chronic effects

Oral (local)

(systemic)

(local)

(systemic)

Dermal

Inhalation

Predicted No Effect Concentration (PNEC) : No information available.

### 8.2. Exposure controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

##### Eye Protection

Goggles (European standard - EN 166)

##### Hand Protection

Protective gloves

##### Glove material

Breakthrough time

Glove thickness

EU standard

Glove comments

Natural rubber

See manufacturers

-

EN 374

(minimum requirement)

Butyl rubber

Nitrile rubber

Neoprene

PVC

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

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Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.  
(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

### Respiratory Protection

When workers are facing concentrations above the exposure limit they must use \ appropriate certified respirators.  
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

### Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
Recommended Filter type: Particulates filter conforming to EN 143

### Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  
Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141  
When RPE is used a face piece Fit Test should be conducted

### Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9: Physical And Chemical Properties

### 9.1. Information on basic physical and chemical properties

Physical State	Powder Solid	
Appearance	White	
Odor	Pungent	
Odor Threshold	No data available	
Melting Point/Range	245 - 251 °C / 473 - 483.8 °F	
Softening Point	No data available	
Boiling Point/Range	No information available	
Flammability (liquid)	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	
Flash Point	No information available	Method - No information available
Autoignition Temperature	No data available	
Decomposition Temperature	225 °C	
pH	3.0	1% aq.sol
Viscosity	Not applicable	Solid
Water Solubility	12 g/L (25°C)	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Vapor Pressure	No data available	
Density / Specific Gravity	No data available	
Bulk Density	No data available	
Vapor Density	Not applicable	Solid
Particle characteristics	No data available	

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### 9.2. Other information

Molecular Formula	C3 Cl3 N3 O3
Molecular Weight	232.41
Oxidizing Properties	Oxidizer
Evaporation Rate	Not applicable - Solid

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Yes

### 10.2. Chemical stability

Stable under normal conditions, Hygroscopic, Oxidizer: Contact with combustible/organic material may cause fire.

### 10.3. Possibility of hazardous reactions

Hazardous Polymerization	: No information available.
Hazardous Reactions	: No information available.

### 10.4. Conditions to avoid

Incompatible products. Exposure to moist air or water. Excess heat. Combustible material.

### 10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong reducing agents. Combustible material.

### 10.6. Hazardous decomposition products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen chloride gas.

## SECTION 11: Toxicological Information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

(a) acute toxicity;

Oral	Category 4
Dermal	Based on available data, the classification criteria are not met
Inhalation	Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Trichloro-S-triazinetriene	LD50 = 406 mg/kg ( Rat )	LD50 > 2000 mg/kg ( Rabbit )	LC50 > 5.25 mg/L ( Rat ) 4 h

(b)	skin corrosion/irritation;	No data available
(c)	serious eye damage/irritation;	Category 2
(d)	respiratory or skin sensitization;	
	Respiratory	No data available
	Skin	No data available
(e)	germ cell mutagenicity;	No data available
(f)	carcinogenicity;	No data available
		There are no known carcinogenic chemicals in this product

(g)	reproductive toxicity;	No data available
(h)	STOT-single exposure; Results / Target organs	Category 3 Respiratory system.
(i)	STOT-repeated exposure; Target Organs	No data available No information available.
(ii)	aspiration hazard;	Not applicable Solid
Other Adverse Effects		The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information
Symptoms / effects, both acute and delayed		No information available.

#### 11.2. Information on other hazards

Endocrine Disrupting Properties	Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.
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### SECTION 12: Ecological Information

#### 12.1. Toxicity

Ecotoxicity effects	The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.		
Component	Freshwater Fish	Water Flea	Freshwater Algae
Trichloro-S-triazinetrione	LC50: 0.13 - 0.5 mg/L, 96h static (Lepomis macrochirus) LC50: 0.06 - 0.11 mg/L, 96h static (Oncorhynchus mykiss)	EC50: 0.16 - 0.18 mg/L, 48h Static (Daphnia magna) EC50: = 0.21 mg/L, 48h (Daphnia magna)	
Component	Microtox	M-Factor	
Trichloro-S-triazinetrione		10	

#### 12.2. Persistence and degradability

Persistence	Soluble in water, Persistence is unlikely, based on information available.
Degradation in sewage treatment plant	Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

#### 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

#### 12.4. Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

#### 12.5. Results of PBT and vPvB assessment

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

#### 12.6. Endocrine disrupting properties

Endocrine Disruptor Information

**12.7. Other adverse effects**

Persistent Organic Pollutant  
Ozone Depletion Potential

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Waste from Residues/Unused Products

Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC)

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

Other Information

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

**SECTION 14: Transport Information****IMDG/IMO**

14.1. UN number	UN2468
14.2. UN proper shipping name	TRICHLOROISOCYANURIC ACID, DRY
14.3. Transport hazard class(es)	5.1
14.4. Packing group	II

**ADR**

14.1. UN number	UN2468
14.2. UN proper shipping name	TRICHLOROISOCYANURIC ACID, DRY
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**IATA**

14.1. UN number	UN2468
14.2. UN proper shipping name	TRICHLOROISOCYANURIC ACID, DRY
14.3. Transport hazard class(es)	5.1
14.4. Packing group	II

14.5. Environmental hazards	Dangerous for the environment Product is a marine pollutant according to the criteria set by IMDG/IMO
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14.6. Special precautions for user	No special precautions required
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14.7. Maritime transport in bulk according to IMO instruments	No special precautions required
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**SECTION 15: Regulatory Information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

International Inventories

X = listed, Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDL), Philippines (PICCS), China (IECSC), Japan (ENCS), Australia (AICS), Korea (ECL).

Component	ELINCS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Trichloro-S-triazinetriene	201-782-8	-		X	X	-	X	X	X	X	KE-34101

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals  
Not applicable

National Regulations  
WGK Classification

See table for values

Component  
Trichloro-S-triazinetriene

Germany - Water Classification (VwVwS)  
WGK2

Germany - TA-Luft Class

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3

H272 - May intensify fire; oxidizer  
H302 - Harmful if swallowed  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects  
EUH031 - Contact with acids liberates toxic gas

### Disclaimer

The information provided in this 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 any other materials or in any process, unless specified in the text