

## NURELLE-D 505

### 1. COMPANY IDENTIFICATION

<b>DE-NOCIL CROP PROTECTION PVT. LIMITED</b> <b>Reg. Office :</b> 1st Floor, Unit No. 1, Corporate Park, V.N. Purav Marg, Chembur, Mumbai 400 071.  Phone : 91-22-55985700, Fax : 91-22-55985790	<b>Contact Person In Emergency</b>	EHS Delivery Leader , Lote Plant
	<b>Local Bodies Involved</b>	The District Collector
	<b>Standard Packing</b>	PET bottles in CFB box.
<b>PLANT :</b> A-1, Lote-Parshuram Industrial Area, Lote, Taluka - Khed, Dist.- Ratnagiri. 415 722. Tel. (02356) 72046 , Fax - (02356) 72310 ; (02356) 72042	<b>Tremcard Details / Ref.</b>	Relevant DE-NOCIL Tremcard
	<b>Others</b>	---

### 2. CHEMICAL IDENTITY

<b>Chemical Name</b>	[(RS)- $\alpha$ -Cyano-3-phenoxybenzyl- (1-RS)- cis, trans-3-(2,2-dichlorovinyl)- 2,2- dimethyl cyclopropane carboxylate] + {0,0-Diethyl 0-(3,5,6-trichloro 2-pyridyl) Phosphorothioate	<b>Trade Name</b>	Nurelle-D 505
<b>Synonyms</b>		<b>Chemical Classification</b>	Mixture of organophosphate & Synthetic Pyrethroid Pesticide.
<b>Chemical Formula</b>	Mixture	<b>CAS Number</b>	2921-88-2 52315-07-8
<b>U.N. Number</b>	DNA	<b>U. N. Hazard Class</b>	6.1 , 3
<b>HAZCHEM code (E.A.C.)</b>	DNA	<b>ADR H.I.N.</b>	663

REGULATED IDENTIFICATION		HAZARDOUS INGREDIENTS	CAS No.
<b>Shipping Name</b>	Poison	1. Cypermethrin	52315-07-8
<b>Shipping Code/ Label</b>	6.1 , 3	2. Chlorpyrifos	2921-88-2
<b>Hazardous Waste ID No.</b>	15	3. O-Xylene	1330-20-7
<b>Uses :</b> - Photostable Pyrethroid insecticide.			

### 3. PHYSICAL AND CHEMICAL DATA

<b>Boiling Point/Range °C</b>	DNA	<b>Physical State</b>	Liquid	<b>Appearance</b>	Yellowish clear
<b>Melting/Freezing Point °C</b>	< -5	<b>Vapour Pressure at 20 °C , N/m<sup>2</sup></b>	DNA	<b>Odour</b>	Xylene like
<b>Vapour Density (Air=1)</b>	3.7	<b>Solubility in water at 30 °C</b>	Forms emulsion	<b>Other Information : -</b>	
<b>Specific Gravity at 20 °C Water = 1</b>	1.1	<b>pH</b>	Not Pertinent		

### 4. FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point °C</b>	CC OC	34 --	<b>Flammability LEL % v UEL % v</b>	DNA	<b>TDG Flammability</b>	3
<b>Explosion sensitivity to impact</b>	No	<b>Explosion Sensitivity to Static Electricity</b>	Yes	<b>Auto ignition Temp.</b>	DNA	
<b>Combustible Material</b>	Yes	<b>Explosive Material</b>	No	<b>Hazardous Polymerization</b>	No	
<b>Flammable Material</b>	No	<b>Oxidizer</b>	No	<b>Corrosive Material</b>	No	
<b>Pyrophoric Material</b>	No	<b>Organic Peroxide</b>	No	<b>Other Information :-</b> Decomposes at 220 °C		
<b>Hazardous Combustion Products</b>		Toxic fumes of CN <sup>-</sup> , Cl <sup>-</sup> , SO <sub>x</sub> and NO <sub>x</sub>				

### 5. REACTIVITY DATA

<b>Chemical Stability</b>	Stable under normal conditions
<b>Incompatibility With Other Material</b>	Strong Oxidizers such as nitrates, perchlorates, conc. H <sub>2</sub> SO <sub>4</sub>
<b>Reactivity</b>	None.
<b>Hazardous Reaction Products</b>	None.

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## 6. HEALTH HAZARD DATA

<b>Route Of Entry</b>	1. Absorption through Skin 2. Inhalation 3. Ingestion			
<b>Effects Of Exposure / Symptoms</b>	High vapour concentration may cause irritation of eyes, skin & mucous membrane. Headache, nausea & narcosis. Ingestion may be fatal.			
<b>Emergency Treatment</b>	Refer section 8 for first aid. <b>Obtain medical attention immediately.</b>			
<b>Permissible Exposure Limits</b>	<b>TLV-TWA(ACGIH)</b>	0.2 mg/m <sup>3</sup> for CHP 435 mg/m <sup>3</sup> for xylene.	<b>STEL(ACGIH)</b>	DNA
<b>LD50 Oral Rat : 230 mg/Kg LD50 Rabbit : &gt;2000 mg/Kg</b>	<b>IDLH</b>	DNA	<b>Odour threshold</b>	DNA
<b>NFPA Hazard Signals</b>	<b>Health - (2)</b>	<b>Flammability - (3)</b>	<b>Reactivity - (0)</b>	<b>Special - (--)</b>

## 7. PREVENTIVE MEASURES

<b>PERSONAL PROTECTIVE EQUIPMENTS</b>	Use PVC or Rubber gloves, apron, gum-boots, goggles / face shield and overalls. Use breathing apparatus if required.
<b>HANDLING AND STORAGE PRECAUTIONS</b>	Store in cool, clean, ventilated, fireproof storage area. Keep away from heat, spark, open flame and incompatible materials. (Strong oxidizing agents ). Protect containers against physical damage.

## 8. EMERGENCY AND FIRST AID MEASURES

<b>FIRE (Class Of Fire : B )</b>	
<b>Fire Extinguishing Media</b>	Alcohol resistant foam or dry agent (CO <sub>2</sub> , Dry chemical powder). Spray water to cool adjacent containers.
<b>Special Procedures</b>	Prevent any contaminated water runoff to sewers or water sources.
<b>Unusual Hazard</b>	None.

### EXPOSURE

<b>First Aid Measures</b>	<p><b>Eyes</b> : Flush with plenty of water for at-least 15 min.</p> <p><b>Skin</b> : Remove contaminated clothing and wash affected part with Soap and water</p> <p><b>Inhalation</b> : Remove victim to fresh air. If not breathing, give artificial respiration.</p> <p><b>Ingestion</b> : If conscious have victim drink water or milk. DO NOT induce vomiting.</p> <p><b>Obtain Medical Attention Immediately</b></p>
<b>Antidotes / Dosage</b>	Inject atropine IV or IM (0.4-2.0 mg/Kg.) every 15 min. until atropinised or universal antidote (A mixture containing 2 parts activated charcoal, 1 part MgO and 1 part tannic acid in 300 ml warm water. No specific antidote for pyrethroids. Treat symptomatically

### SPILLS

<b>Steps To Be Taken</b>	Stop leak if safe to do so. Contain spillage. Absorb in earth or sand for disposal. Eliminate all sources of ignition. Cordon off area. Stay upwind. Use personal protective equipment.
<b>Waste Disposal Method</b>	Incinerate. Detoxify the contaminated area.

## 9. ADDITIONAL INFORMATION / REFERENCES

<b>ECOLOGICAL INFORMATION</b>	
<b>Ecotoxicity</b>	Avian oral toxicity : Mallard duck 76.6 mg/Kg. Toxic to bees. Aquatic Toxicity : 3.0 ppm / Rainbow trout /TLM/fresh water.
<b>Persistence</b>	Cypermethrin : Slowly hydrolyses in water. Hydrolyses rapidly in alkaline media. Chlorpyrifos : Half life period in natural water at 25°C & pH=8.0 is 1.5 days.
<b>OTHER INFORMATION</b>	<b>It is highly toxic substance.</b>

### REFERENCES (For Obtaining More Information)

1. Hazardous Chemical Data Book: G. Weiss : Noyes data corp. USA	4. Handbook of Environmental Data : Keren Verschueren : Van Nostrand Reinhold Co. , USA
2. Dangerous properties of Industrial Materials : N.I. Sax : Van Nostrand Reinhold Co. , USA	5. Toxic & hazardous Industrial Chemical Safety Manual : The international technical institute , Tokyo, JAPAN
3. The Sigma Aldrich Library of Chemical Safety Data : Sigma Aldrich Corporation , USA	6. Occupational Safety And Health Guidelines For Chemical Hazards: NIOSH/OSHA: U.S. Dept. Of health & Human Services And U.S. Dept. Of labour , USA.

## 10. DISCLAIMER

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