

<b>Bayer CropScience Limited</b>		<b>MATERIAL SAFETY DATA SHEET</b> <i>(As per Schedule 9, Rule 17 of the Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 Amendment 2003)</i>	
<b>PREMISE 350 SC</b>			
MSDS NO. : <b>4869095</b>	ISSUE NO. : <b>01</b>	DATE OF ISSUE : <b>01.08.2005</b>	PAGE 1 OF 7
<b>1. CHEMICAL IDENTITY</b>			
1.1	PRODUCT NAME / TRADE NAME : <b>PREMISE 350 SC</b>		
1.2	CHEMICAL CLASSIFICATION	Nitroimidazolidinylidenamine, Nitroguanidine insecticide	
1.3	CHEMICAL NAME	: Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine.	
1.4	SYNONYMS	: Cencor.	
1.5	FORMULA	: C <sub>9</sub> H <sub>10</sub> ClN <sub>5</sub> O <sub>2</sub>	M.W: 255.69
1.6	C.A.S. NO.	: 138261-41-3	
1.7	U.N. NO.	: Not dangerous goods ( <b>ADNR / ADR / GGVE / GGVS / IATA_C / IATA_P / IMDG / RID</b> )	
1.8 REGULATED IDENTIFICATION			
1.8.1	SHIPPING NAME CODES/LABEL	: Transport Information: Not dangerous goods according to <b>ADNR / ADR / GGVE / GGVS / IATA_C / IATA_P / IMDG / RID</b> Hazardous components which must be listed on the label: Imidacloprid WHO-classification: II (Moderately hazardous)  Hazard Classification Xn - Harmful - Yes  R-phrases: R22 Harmful if swallowed. R52 Harmful to aquatic organisms. S-phrases: None	
1.8.2	HAZCHEM NO.	: <b>2Y</b>	
1.8.3	HAZARDOUS WASTE ID NO.	: <b>29</b>	
1.9	HAZARDOUS INGREDIENTS	: Imidacloprid	C.A.S. No.      % 138261-41-3    35.0
<b>2. PHYSICAL AND CHEMICAL DATA</b>			
2.1	PHYSICAL STATE	: Liquid.	
2.2	APPEARANCE	: Colour white liquid, suspension	

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2.3	ODOUR	:slight, specific odour	
2.4	<del>SPECIFIC GRAVITY</del> / DENSITY (WATER = 1) (g/ml)	:1.15 at 20 °C	
2.5	VAPOUR PRESSURE AT 20 °C	:Not Available.	
2.6	VAPOUR DENSITY (AIR=1)	:Not Available.	
2.7	BOILING RANGE/POINT °C	:Not Available.	
2.8	MELTING/FREEZING POINT °C	:Not Available.	
2.9	SOLUBILITY	:completely miscible in water	
2.10	pH	:7.0 to 8.0 undiluted.	
<b>3. FIRE AND EXPLOSION HAZARD DATA</b>			
3.1	FLAMMABILITY	:No	
3.2	FLASH POINT. (°C)	:> 100 °C, DIN 51755 Not determined due to the boiling point.	
3.3	AUTO - IGNITION TEMP. (°C)	:Not Available.	
3.4	UPPER EXPLOSION LIMIT (% BY VOLUME)	:Not Available.	
3.5	LOWER EXPLOSION LIMIT (% BY VOLUME)	:Not Available.	
3.6	TDG FLAMMABILITY	:Not Available.	
3.7	EXPLOSION SENSITIVITY TO IMPACT	:Not Available.	
3.8	EXPLOSION SENSITIVITY TO STATIC ELECTRICITY	:Not Available.	
3.9	HAZARDOUS COMBUSTION PRODUCTS	:Formation of Hydrogen cyanide, Hydrogen chloride, Carbon monoxide, sulphur dioxide, and Nitrogen oxides (NO <sub>x</sub> ) is possible.	
3.10	HAZARDOUS POLYMERISATION	:Will not occur.	
3.11	CUMBUSTIBLE LIQUID	:Yes	

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3.12 EXPLOSIVE MATERIAL	:No		
3.13 CORROSIVE MATERIAL	:No		
3.14 FLAMMABLE MATERIAL	:No		
3.15 OXIDISER	:No		
3.16 PYROPHORIC MATERIAL	:No		
3.17 ORGANIC PEROXIDE	:No		
3.18 OTHERS	:Not Available.		
<b>4. REACTIVITY DATA</b>			
4.1 CHEMICAL STABILITY	:No hazardous reactions when stored and handled according to prescribed instructions.		
4.2 INCOMPATIBILITY WITH OTHER MATERIAL	:Not Available.		
4.3 REACTIVITY	:Not Available.		
4.4 HAZARDOUS REACTION PRODUCTS	:Not Available.		
<b>5. HEALTH HAZARD DATA</b>			
5.1 ROUTES OF ENTRY	:		
5.2 EFFECTS OF EXPOSURE / SYMPTOMS	:		
5.3 EMERGENCY TREATMENT	:		
5.4 TLV (ACGIH)	:Not Available.		
5.5 STEL	:Not Available.		
5.6 PERMISSIBLE EXPOSURE LIMIT	:Not Available.		
5.7 ODOUR THRESHOLD	:Not Available.		
5.8 LD 50 (ROUTES & SPECIES)	:Oral rat : 768 mg/kg Dermal rat : > 5000 mg/kg		
LC 50 (ROUTES & SPECIES)	:Inhalation rat : > 1.752 mg/l Exposure time: 4 h		

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		<p>TOXICOLOGICAL INFORMATION  Skin Irritation : non irritant (rabbit)  Eye Irritation non irritant (rabbit)  Sensitization: Non-sensitizing (guinea pig)  OECD 406, Buehler test  Test conducted with a similar formulation</p> <p>ECOLOGICAL INFORMATION  Fish Toxicity: LC50 (Rainbow trout (Oncorhynchus mykiss)) 211 mg/l, Exposure time: 96 h  Daphnia Toxicity: EC50 (Water flea (Daphnia magna)) 85 mg/l, Exposure time: 48 h  Algae Toxicity: EC50 (Desmodesmus subspicatus) &gt;10 mg/l, Growth rate Exposure time: 72 h  The value mentioned relates to the active ingredient Imidacloprid.</p>	
5.9	NFPA HAZARD SIGNALS	:	
	HEALTH	:	2
	FLAMMABILITY	:	1
	REACTIVITY	:	1
	SPECIAL	:	0
<b>6.</b>	<b>PREVENTIVE MEASURES</b>		
6.1	PERSONAL PROTECTIVE EQUIPMENT	:	
	-- GLOVES	:	Solvent resistant hand gloves
	-- RESPIRATORY	:	No personal respiratory protective equipment normally required.
	-- EYES	:	Chemical safety goggles with side-shields
	-- FOOTWEAR	:	Conductive shoes
	-- CLOTHING	:	Protective clothing.
	-- OTHER	:	Shower and ocular shower.
6.2	HANDLING AND STORAGE PRECAUTIONS	:	<b>Handling</b> Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and at the end of workday. Remove soiled or soaked clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed

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<p>(burnt).</p> <p><b>Storage</b>  Keep containers tightly closed in a dry, cool and well-ventilated place.  Store in original container.  Store in a place accessible by authorized persons only.  Keep away from direct sunlight.  Keep away from food, drink and animal feeding stuffs.  German storage class 12 Non Combustible Liquids  Storage temperature: -10 to 40 °C  Suitable materials: Only use containers that are approved specifically for the substance / product.</p>			
<p><b>7. EMERGENCY AND FIRST AID MEASURES</b></p> <p>7.1 FIRE :</p> <p>7.1.1 FIRE EXTINGUISHING MEDIA : Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Sand.</p> <p>7.1.2 SPECIAL PROCEDURES : Use self contained breathing apparatus. Wear full protective suit. If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Contain fire-fighting water by bunding area with sand or earth. Collect contaminated firefighting water separately, must not be discharged into the drains. Do not whirl around the product.</p> <p>7.1.3 UNUSUAL HAZARDS : In the event of fire the following can be released: Carbon monoxide (CO), Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Nitrogen oxides (NO<sub>x</sub>).</p> <p>7.2 EXPOSURE</p> <p>7.2.1 FIRST AID MEASURE : Move out of dangerous area. If the patient is likely to become unconscious, place and transport in stable sideways position. Seek medical advice immediately and show this container or label.  <b>Eyes:</b> Wash with large amounts of water immediately, Occasionally lifting upper and lower lids, (approximately 15-20 minutes)  <b>Skin:</b> Remove contaminated clothing and shoes immediately. wash affected area with soap and mild detergent and large amounts of water (approximately 15 - 20 minutes)</p>			

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7.2.2 ANTIDOTE/DOSAGE	<p><b>Inhalation:</b> Remove victim from exposed area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.</p> <p><b>Ingestion:</b> Rinse mouth. Do not induce vomiting. Treat symptomatically and supportively.</p>		
7.3 SPILLS	: No specific antidote known. Monitoring of respiratory and cardiac functions. Gastric lavage, then charcoal (carbo medicalis) and sodium sulfate.		
7.3.1 STEPS TO BE TAKEN	: Use Personal Protective Instruments. Avoid contact with spilled material or contaminated surfaces. If ordinary clothing becomes contaminated remove it immediately. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing. Take up with absorbent material (e.g. sand, earth or a proprietary absorbent material) and sweep or preferably vacuum up spillage using equipment fitted with high efficiency final filter. Avoid creating a dust. Clean the area with soap solution. Do not allow entering in drains or waterways. Transfer collected material to heavy duty plastic drums and keep safe for disposal.		
7.3.2 WASTE DISPOSAL METHOD	: Product disposal in accordance with regulations for special waste. It must be taken to special waste disposal site and should be incinerated at a suitable waste incineration plant in accordance with official regulations. Where large quantities are concerned consult the supplier. This material and its container must be disposed as a hazardous waste. Avoid release to the environment.		
8. ADDITIONAL INFORMATION REFERENCE	: BCS GLOBAL QHSE MSDS Library - SAP MSDS System - Material/UVP No. – 2929698. Bayer Crop Protection safety Data Sheet – 492136/05 18 Aug 2000.		

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<b>9. MANUFACTURER / SUPPLIERS DATA</b>			
9.1 NAME OF FIRM	: Bayer CropScience Limited		
9.2 MAILING ADDRESS	: Kolshet Road, Thane, (Maharashtra) Pin Code: 400 607		
9.3 TELEPHONE	: 91-22-25311030-Thane		
9.4 TELEFAX NO.	: 91-22-25455223-Thane		
9.5 E-MAIL	: sadanand.dandekar@bayercropscience.com		
9.6 TELEGRAPHIC ADDRESS	:		
9.7 a) CONTACT PERSON IN EMERGENCY	: Emergency Control Center Bayer Crop Science Limited, Kolshet Road, Thane (Maharashtra State) 400 607 Telephone No.       022-25311884 022-25311885		
b) LOCAL BODIES INVOLVED	: District Emergency Control Center Collector Office, Thane.		
9.8 STANDARD PACKING	: 250 and 1000 ml in HDPE container.		
9.9 TREMCARD DETAILS / REF. NO.	: Tremcard is prepared as per the directions of Transport Commissioner, Maharashtra State Mumbai		
<b>10. DISCLAIMER</b>	: Information contained in this Material Safety Data Sheet is believed to be reliable but no representation guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to Manufacturer / Seller to ensure that the information contained in the Material Safety Data Sheet is relevant to the product manufactured / handled or sold by him as the case may be. The company makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.		
Changes since the last version are highlighted in <b>Red Bold Italic</b> . This version replaces all previous versions.			