



YUGANTAR EDUCATION SOCIETY'S

# SHRI BALASAHEB TIRPUDE COLLEGE OF HOTEL MANAGEMENT & CATERING TECHNOLOGY

(Approved by AICTE, New Delhi, Govt. of India, Govt. of Maharashtra & RTM Nagpur University, Nagpur)

1, Shri Balasaheb Tirpude Marg, Civil Lines, Sadar, Nagpur - 440 001

Phone : (O) +91 712 2550695 Fax : +91 712 2550695

Email : tirpudehmct@gmail.com, Visit us at www.tirpudehmct.ac.in

AICTE Permanent Institute Id : 1-14318331 • DTE Institute Code : HM4219 • RTM NU College Code - 007 AISHE Code : C-18976

Date: 07/06/2023

To,

The Principal,

Shri Balasaheb Tirpude College of

Hotel Management and Catering Technology,

Nagpur

Subject: Submission of report on 'Training Session on Integrated Pest Control Management' by Star Pest Control Services held on 30<sup>th</sup> May, 2023 for the Academic Year 2022-23.

Respected Sir,

I undersigned, submit the report 'Training Session on Integrated Pest Control Management' by Star Pest Control Services held on 30th May, 2023 for the Academic Year 2022-23.

Kindly acknowledge the receipt & oblige.

Thanking you,

Yours Faithfully,

Event Co-Ordinator

**NITU JAISWAL**  
Ms. Nitu B. Jaiswal  
Assistant Professor  
Shri Balasaheb Tirpude  
College of Hotel Management  
& Catering Technology, Nagpur



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Reference no: SBT/HMCT/IL/2023/ 454

Date: - 29/05/2023

To,

Mr. Akshay Lanjewar  
Star Pest Control Services,  
186, Surendra Nagar,  
Nagpur-440015

Subject: Invitation to Provide Training Session on Integrated Pest Control Management

Respected Sir,

With reference to above mentioned subject, we would like to invite you to conduct the Training Session on Integrated Pest Control Management for our students on 30th May 2023 between 10.30 am – 12.30 pm. All necessary requirements will be ready before your arrival as per guidelines. The venue for training will be Training Restaurant at our institute.

Hoping for long and meaningful association.

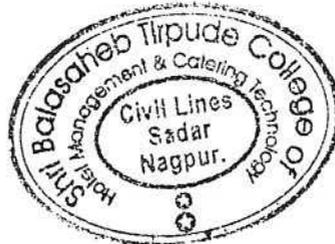
Thanking you,

Regards.

  
Nitu B. Jaiswal

(Assistant Professor)

9372167250







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Ref: SBT/HMCT/2023/455

Date: 30/05/2023

To,

Mr. Akshay Lanjewar

Star Pest Control Services,

186, Surendra Nagar,

Nagpur-440015

Thanks Letter.

Dear Sir,

On Behalf of Management, Staff and Students of this Institute I, the Undersigned would like to extend my sincere thanks for Providing Training session on Integrated Pest Control Management for our students on 30th May 2023 between 10.30 am – 12.30 pm. and sharing your knowledge with our students.

I feel that the session was fruitful to the students and will help them in near future in case arise of any situation regarding this aspect.

Looking ahead for a long and meaningful association.

Thanking You.

With warm regards,  
**NITU JAISWAL**  
Assistant Professor  
Shri Balasaheb Tirpude  
College of Hotel Management  
& Catering Technology, Nagpur



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# Shri Balasaheb Tirpude college of Hotel Management & Catering Technology, Nagpur

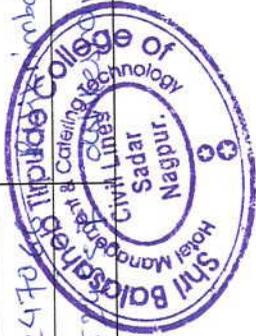
Name Of Event Training of Pest Control Management

Date of Event: 30/5/2023

Organized By: \_\_\_\_\_

## Participants Details

Sl. No.	Name of Student	Semester	Contact No.	E-Mail	Signature
1.	Akesh Jaiswal	4 <sup>th</sup>	9370678266	akshjaiswal@gmail.com	
2.	Devashree Raole	4 <sup>th</sup>	80551097294	devashree2002@gmail.com	
3.	Samiksha Paragpatre	4 <sup>th</sup>	8421776419	samibparagpatre@gmail.com	
4.	Abhishek Rathore	4 <sup>th</sup>	8626019228	abhishekrathore57@gmail.com	
5.	Rathamesh masnon	4 <sup>th</sup>	9561311372	Rathamesh729@gmail.com	
6.	Rohit belkhode	4 <sup>th</sup>	9080149449	Rohit belkhode@gmail.com	
7.	Akshada Rajurkar	4 <sup>th</sup>	8466660269	akshada rajurkar@gmail.com	
8.	Saloni Rathod	4 <sup>th</sup>	9356074580	salonirathod098@gmail.com	
9.	Vaibhav Bhiogade	4 <sup>th</sup> sem	8010340292	vaibhavbhiogade9@gmail.com	
10.	Savitika Gupta	4 <sup>th</sup> sem	9225239880	Savitikadeepk Gupta@gmail.com	
11.	Abhishek Topre	4 <sup>th</sup> sem	7083781316	abhishektopre029@gmail.com	
12.	Sayali Karade	4 <sup>th</sup> sem	7709957719	sayalikarade@gmail.com	
13.	Pranay Gadikar	4 <sup>th</sup> sem	7638727166	pranaygadikar@gmail.com	
14.	Ritik Nimbalkar	4 <sup>th</sup> sem	7498247066	ritiknimbalkar9@gmail.com	
15.	Ashwika Mandape	4 <sup>th</sup> sem	9579555555	ashwikamandape@gmail.com	



*Aashu*

# Shri Balasaheb Tirpude college of Hotel Management & Catering Technology, Nagpur

Name Of Event Training on Pest Control Management Date of Event: 30/5/2023

Organized By: \_\_\_\_\_

## Participants Details

Sr. No.	Name of Student	Semester	Contact No.	E-Mail	Signature
1.	Sausabh Tambe	4 <sup>th</sup>	9325208315	Sausabh.tambe2577@gmail	
2.	Shubham Bodite	4 <sup>th</sup>	9807740324	shubhambodite08@gmail.com	
3.	Aarushi Kothekar	4 <sup>th</sup>	8180950661	arushi_7@gnrcollege.com	
4.	Abuzar Khan	4 <sup>th</sup> Sem	9256845207	rehanabuzar19880@gmail.com	
5.	Vaibhav Purnan	4 <sup>th</sup> Sem	9190610719	Vaibhav.purnan383@gmail.com	
6.	Madhulika M.	4 <sup>th</sup> Sem	9225408964	Madhulika.Madavdhal@gmail.com	
7.	Hemlata R. Kalamkar	4 <sup>th</sup> sem	8979196349	Salani.kalamkar18@gmail.com	H.Kalamkar
8.	Siddhant S. Gadawar	4 <sup>th</sup> sem	9130388968	Siddhant.240605@gmail.com	
9.	Ganveer. Meshram	4 <sup>th</sup> sem	8830262762	meshram.ganveer@gmail.com	
10.	Vaishnavi Narwarkar	4 <sup>th</sup> Sem	8855901904	vaishnavi.ashok.narwarkar@gmail.com	
11.	Sahil. Madanvi	4 <sup>th</sup> JEM	8010977065	msahil19@gmail.com	
12.	Khushal Narwaware	4 <sup>th</sup> sem	9249331444	Khushalnarnaware62@gmail.com	
13.	Mayur Jatale	4 <sup>th</sup>	9022128593	Mayur.Jatale19@gmail.com	
14.	Harsh Mohodkar	4 <sup>th</sup> Sem	985071888	harsh.mohodkar2004@gmail.com	
15.	Vaibhav Bozkar	4 <sup>th</sup> Sem	98995823	Bozkar.vaibhav20@gmail.com	

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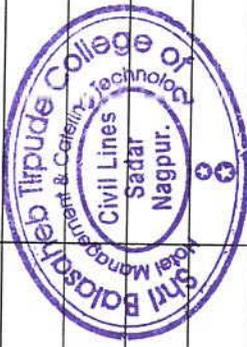


# Shri Balasaheb Tirpude college of Hotel Management & Catering Technology, Nagpur

Name Of Event Training on Pest Control Management Date of Event: 30/5/2023

Organized By: \_\_\_\_\_

## Participants Details

Sr. No.	Name of Student	Semester	Contact No.	E-Mail	Signature
1.	Brijwal Jansre	2 sem	7798672706	Pradipwansre@gmail.com	P-R-D Jansre
2.	Preet Mustafa	4 sem	8237923115	Preetmustafa0712@gmail.com	Preet
3.	Praethamesh Kesture	4 sem	7447833004	Praethameshkesture@gmail.com	Pk.
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.	<i>Aareebul</i>				
12.					
13.	OFFICIATING PRINCIPAL Shri Balasaheb Tirpude College of Hotel Management & Catering Technology, Nagpur				
14.					
15.					



H.O. : 101 / 102, Kanchanganga, Factory Lane, Borivli (West), Mumbai - 400 092, INDIA.  
Tel. : 91-22-2898 2133 / 44, 2898 7912 / 14, 2898 4439 / Fax : 91-22-2899 3948 Website : [www.heranba.com](http://www.heranba.com)

Marketing Office : 201/202, Dwarkesh, Above Tribhuvandas Bhimji Jhaveri, L. T. Road, Borivli (W), Mumbai - 400 092, INDIA.  
Tel. : 91-22-2833 8443 / 44 / Fax : 91-22-2833 8445 / e-mail : [heranba@vsnl.com](mailto:heranba@vsnl.com)

## MATERIAL SAFETY DATA SHEET PROPOXUR 20% EC

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** PROPOXUR 20% EC  
**Chemical class:** Carbamate  
**Formulation:** Emulsifiable Concentrate (EC)  
**Supplier:** Heranba Industries Limited  
**Address:** 101/102, Kanchanganga, Factory Lane, Borivli (W), Mumbai - 400 092, INDIA.  
**Telephone:** +91-22-898 7912/14, 2133/44, 4439  
**Facsimile:** +91-22-899 3948.  
**Website** [www.heranba.com](http://www.heranba.com)

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY	CAS NO.	PROPORTION (%w/w)
Propoxur	114-26-1	20.00
Other ingredients		Q.S.

### 3. HAZARDS IDENTIFICATION

#### Main Hazard

Harmful by inhalation and if swallowed. Irritating to eyes and skin. Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Eye effects: Moderately irritating.

Health effects:

Skin: Slightly irritating.

Ingestion: May be harmful when ingested.

Inhalation: May be harmful when inhaled.

### 4. FIRST AID MEASURES

**EYE:** Flush eyes with water for 15 minutes. Hold eyelids open while washing. Consult an eye specialist.

**SKIN:** Immediately remove contaminated clothing, including shoes. Wash affected area with plenty of water and soap. Speed in removing liquid from skin is of prime importance. Call doctor immediately.

**INGESTED:** Do not induce vomiting. Wash out mouth with water. Call doctor immediately.

**INHALED:** Move patient to fresh air and keep at rest. Call doctor immediately.

**NOTE TO PHYSICIAN:** The active ingredient in this product is a carbonate poison.

Symptoms of poisoning – Local: Temporary blurred vision due to contraction of the pupils (miosis) following contact with the eye. Systemic : Sweating, salivation, flushing, dizziness, abdominal pain, discomfort in the chest, muscle twitching, convulsions, respiratory failure, nausea, headache, vomiting, diarrhea, hypertensive effect, blurred vision.



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## **5. FIRE-FIGHTING MEASURES**

### **Extinguishing Media:**

Water spray, foam, CO<sub>2</sub>, sand. Fight fire in early stages if safe to do so. Contain fire-fighting water and do not allow run-off fire fighting to enter drains or water courses.

### **Protective Clothing:**

Wear respiratory protection. Full face mask with combination filter. Respiratory with independent air supply.

## **6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

Unprotected persons must be kept away.

**Environmental Precautions:** Prevent entry into drains, waters or soil.

## **7. HANDLING AND STORAGE**

**Suitable material:** Use only containers that are approved specifically for the substance/product.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Personal protection – hand: Solvent resistant gloves.

Personal protection – eye NDA

Personal protection – skin NDA

Other protection Oxidizing properties None

Density 1.17g/cm<sup>3</sup> at 200c

Solubility – water Emulsifiable.

Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and at end of workday. Remove soiled or soaked clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Slightly yellowish liquid

Odour: Aromatic

Solubility in water: Emulsifiable

Density: Approx. 1,049 g/cm<sup>3</sup> at 200C

## **10. STABILITY AND REACTIVITY**

Conditions to avoid: No hazardous reactions when stored and handled according to prescribed instructions.

Incompatible materials: None.

Hazardous decomposition products: None.

## **11 TOXICOLOGICAL INFORMATION**



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Tel. : 91-22-2833 8443 / 44 / Fax : 91-22-2833 8445 / e-mail : heranba@vsnl.com

Acute toxicity LD50 oral, rat – approx 250 mg/kg

LD50 dermal, rat > 5000 mg/kg

Irritation of the skin/rabbit – Slightly irritant

Eye irritant, rabbit – Moderately irritant

## **12. ECOLOGICAL INFORMATION**

Not available

## **13. DISPOSAL CONSIDERATIONS**

**Disposal methods:** Package product wastes. Close and label the waste receptacles and likewise, any un-cleaned empty containers. Dispose of them at a suitable waste disposal plant in accordance with the official regulations. Where large quantities are concerned, consult the manufacturer.

**Disposal packaging:** Triple rinse the container, then perforate and bury it.

## **14. TRANSPORT INFORMATION**

UN no: 2992

Shipping name: Carbamate pesticide liquid, toxic

Class: 6.1

Packaging group: III

## **15. REGULATORY INFORMATION**

None

## **16. OTHER INFORMATION**

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.



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**MATERIAL SAFETY DATA SHEET**  
**BROMADIALONE 0.005% RB**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** BROMADIALONE 0.005% RB

**Other description:** An anticoagulant rodenticide with 0.05% bromodialone

**Supplier:** Heranba Industries Limited

**Address:** 101/102, Kanchanganga, Factory Lane, Borivli (W), Mumbai - 400 092, INDIA.

**Website** [www.heranba.com](http://www.heranba.com)

**2. HAZARDS IDENTIFICATION**

Emergency Overview: May be harmful or fatal if swallowed or absorbed through the skin, because this material may reduce the clotting ability of the blood and cause bleeding.

Primary Entry Routes: Oral (swallowing), dermal (absorption through skin)

Acute Effects (Signs and Symptoms of Overexposure):

Eyes: May cause minor, transient eye irritation (redness).

Skin: May be harmful or fatal if absorbed through the skin. Symptoms of toxicity include lethargy, loss of appetite, reduced clotting ability of blood.

Inhalation: Due to this product's solid form, inhalation is unlikely.

Ingestion: May be harmful or fatal if swallowed. Symptoms of toxicity include lethargy, loss of appetite, reduced clotting ability of blood.

Chronic Effects: Prolonged and/or repeated exposure to small amounts of product can produce cumulative toxicity. Symptoms of toxicity include lethargy, loss of appetite, reduced clotting ability of blood.

Medical Conditions Aggravated by Exposure: Bleeding disorders

Target Organs: Liver

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

CHEMICAL IDENTITY	CAS NO.	CONCENTRATION (%)
Bromodialone	28772-56-7	0.005
Other ingredients		Q.S.

**4. FIRST AID MEASURES**

Eyes: Flush with water. Get medical attention if irritation persists.

Skin: Wash with soap and water. Get medical attention if irritation persists.

Inhalation: If inhaled, remove person to fresh air. Get medical attention.

Ingestion: Call a physician or poison control center immediately. Have the product label available for medical personnel to read. Induce vomiting under the direction of medical personnel. Drink 1 or 2 glasses of water and induce vomiting by touching the back of throat with finger. If syrup of ipecac is available, give 1 tablespoon (15ml) followed by 1 or 2 glasses of water. If vomiting does not occur within 20 minutes, repeat this dosage once. Do not induce vomiting or give anything by mouth to an unconscious person.

Note to Physician: This rodenticide contains an anticoagulant ingredient.



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If ingested, administer vitamin K1 intramuscularly or orally, as indicated in bishydroxycoumarin overdoses. Repeat as necessary based on monitoring of prothrombin times.

#### **5. FIRE-FIGHTING MEASURES**

Flash Point: None

Autoignition Temp.: Not determined

Extinguishing Media: Use media suitable for the surrounding fire

Unusual Fire or Explosion Hazards: None known

Fire Fighting Instructions: Firefighters should wear self-contained breathing apparatus (full facepiece) and full protective clothing. Contain runoff to prevent pollution.

#### **6. ACCIDENTAL RELEASE MEASURES**

Large Spill/Leak Procedures: Isolate and contain spill. Limit access to the spill area to necessary personnel. Do not allow spilled material to enter sewers, streams or other waters. Scoop up spilled material and place in a closed, labeled container for use or disposal.

Small Spills: Scoop up material for use according to label instructions.

#### **7. HANDLING AND STORAGE**

Storage Requirements: Store in original container in a cool, dry area out of reach of children, pets and domestic animals. Do not contaminate water, food or feed. Keep container tightly closed. Do not remove or destroy the product label.

Handling Precautions: Read the entire product label before using this rodenticide. Carefully follow all cautions, directions and use restrictions on the label. Do not get in eyes, on skin or on clothing.

#### **8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

Ventilation: Special ventilation is not required for the normal handling and use of this product when following the label instructions.

Protective Clothing/Equipment: No special requirements.

Respirator: None required when used according to label instructions.

Contaminated Equipment: Damaged or unwanted bait stations and bait holders should be wrapped in paper and discarded in trash.

Comments: Never eat, drink or smoke in work areas. Practice good personal hygiene after using this product. Wash arms, hands and face with soap and water after handling this product, and before eating and smoking.

Laundry contaminated clothing separate from street clothes.

#### **9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Solid blocks

Water Solubility: Negligible

Color: Dark green

Odor: None

Specific Gravity: 1.12 g/cc

#### **10. STABILITY AND REACTIVITY**

Stability: Stable



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Conditions to Avoid: None  
Hazardous Polymerization: Will not occur  
Chemical Incompatibilities: Alkaline materials  
Hazardous Products of Decomposition: Oxides of carbon

#### **11. TOXICOLOGICAL INFORMATION (TECHNICAL)**

Eye Effects/Eye Irritation: Mild, transient irritant  
Acute Oral Effects: LD50 (oral-rat): >5000 mg/kg  
Acute Inhalation Effects: No data available  
Acute Dermal Effects: LD50 (dermal-rabbit): >2000 mg/kg  
Skin Irritation: Non-irritating  
Skin Sensitization: Not a skin sensitizer

#### **12. ECOLOGICAL INFORMATION**

This product is toxic to fish and wildlife. Do not apply this product directly to water, where surface water is present or to intertidal areas below the mean high water mark. Follow label cautions and instructions to reduce hazards to non-target animals.

#### **13. DISPOSAL CONSIDERATIONS**

Disposal: Wastes which result from the use of this product according to the label instructions must be disposed of as specified on the product label.  
RCRA Waste Status: This product is not regulated as a hazardous waste under RCRA. State and local regulation may affect the disposal of this product. Consult your state or local environmental agency for disposal of waste generated other than by use according to label instructions.

#### **14. TRANSPORT INFORMATION**

Proper shipping name: Pesticide, Solid, Toxic, NOS  
UN No.: 2588  
IMDG Code: 6221  
Class: 6.1  
Ems No.: 6.1-04

#### **15. REGULATORY INFORMATION**

TSCA: All components of this product are listed on the TSCA inventory.  
SARA Section 313: Contains no reportable components.  
OSHA Hazard Classification: Acute health hazard, chronic health hazard.  
Proposition 65: Contains no components subject to warning requirements.

#### **16. DISCLAIMER**

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

## Fipronil 2.92%w/w EC

1/10  
Issue Date : 01.01.2022  
Revision No:-00

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

Trade name Fipronil 2.92 %w/w

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

Use Insecticide

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

Supplier Saraswati Agrochemicals  
(India) Pvt, Ltd.

Telephone +91762535901

#### 1.4 Emergency telephone no.

Indian Emergency Number +91762535901

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Skin irritation: Category 2

H315 Causes skin irritation.

Carcinogenicity: Category 2

H351 Suspected of causing cancer.

Specific target organ toxicity - repeated exposure: Category 2

H373 May cause damage to organs (liver, central nervous system) through prolonged or repeated exposure if swallowed.

Aspiration hazard: Category 1

H304 May be fatal if swallowed and enters airways.

Acute aquatic toxicity: Category 1

H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1

H410 Very toxic to aquatic life with long lasting effects.

#### Classification according to EU Directives 67/548/EEC or 1999/45/EC

Xi Irritant, R38

Carc.Cat.3, R40

Xn Harmful, R48/22

N Dangerous for the environment, R50/53

Xn Harmful, R65

## Fipronil 2.92%w/w EC

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R66

### 2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Fipronil
- Tributyl phosphate



Signal word: Danger

### Hazard statements

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs (liver, central nervous system) through prolonged or repeated exposure if swallowed
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

### Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P501	Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

No other hazards known.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

#### Chemical nature

Emulsifiable concentrate (EC)  
fipronil 25 g/l

#### Hazardous components

R-phrases according to EC directive 67/548/EEC  
Hazard statements according to Regulation (EC) No. 1907/2006

Name	CAS-No. / EC-No.	Classification		Conc. [%]
		EC Directive 67/548/EEC	Regulation (EC) No 1272/2008	
Fipronil	120068-37-3 4246105	T; R23/24/25, R48/25 N; R50/53	Acute Tox. 3, H331 Acute Tox. 3, H311	2.93

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			Acute Tox. 3, H301 STOT RE 1; H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	
Distillates (petroleum), hydrotreated light	64742-47-8 265-149-8	Xn; R65 R66	Asp. Tox. 1, H304	> 25.00
Tributyl phosphate	126-73-8 204-800-2	Carc.Cat.3 R40 Xn; R22 Xi; R38	Carc. 2, H351 Acute Tox. 4, H302 Skin Irrit. 2, H315	> 1.00 - < 25.00
Nonylphenol ethoxylate	68412-54-4 500-209-1	Xi; R36/38 N; R51/53	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	> 0.10 - < 2.50
Polyoxyethylene- nonylphenyl-ether- phosphate	68412-53-3	Xi; R38, R41 N; R51/53	Eye Dam. 1, H318 Skin Irrit. 2, H315 Aquatic Chronic 2, H411	> 2.50 - < 25.00
Tetrapropylene benzene sulfonate, calcium salt	11117-11-6 234-360-7	Xn; R21 Xi; R38, R41 R52/53	Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	> 0.10 - < 2.50

### Further information

For the full text of the R-phrases/ Hazard statements mentioned in this Section, see Section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

<b>General advice</b>	Move out of dangerous area. When symptoms develop and persist, seek medical advice.
<b>Inhalation</b>	When inhaled remove to fresh air and seek medical aid.
<b>Skin contact</b>	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Ingestion</b>	Do not induce vomiting: contains petroleum distillates and/or aromatic solvents. Risk of product entering the lungs on vomiting after ingestion. Call a physician or poison control center immediately. Keep at rest.

### 4.2 Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	The following symptoms may occur: Anxiety, Tremors, Restlessness, Convulsions
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### 4.3 Indication of any immediate medical attention and special treatment needed

<b>Treatment</b>	There is no specific antidote. Carefully monitor the respiratory functions. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. Oxygen or artificial respiration if needed. Keep respiratory tract clear. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. Symptoms of poisoning may only appear several hours later. Keep under medical supervision for at least 48 hours.
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### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable** Water spray, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

**Hazchem Code** 3Z

**5.2 Special hazards arising from the substance or mixture** In the event of fire the following may be released:, Carbon monoxide (CO), Hydrogen chloride (HCl), Nitrogen oxides (NO<sub>x</sub>), Hydrogen fluoride, Sulphur oxides

#### 5.3 Advice for firefighters

**Special protective equipment for fire-fighters** Wear self-contained breathing apparatus and protective suit.

**Further information** Contain the spread of the fire-fighting media. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

**Precautions** Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

**6.2 Environmental precautions** Do not allow to get into surface water, drains and ground water.

#### 6.3 Methods and materials for containment and cleaning up

**Methods for cleaning up** Recover the product by pumping, suction or absorption using a dry and inert absorbent clay. Collect and transfer the product into a properly labelled and tightly closed container. When picked up, treat product as prescribed in Sec. 13. "Disposal considerations".

**Additional advice** Check also for any local site procedures.

**6.4 Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

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### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

**Advice on safe handling** No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Use only in area provided with appropriate exhaust ventilation.

**Hygiene measures** Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Smoking, eating and drinking should be prohibited in the application area.

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### 7.2 Conditions for safe storage, including any incompatibilities

**Requirements for storage areas and containers** Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from frost. Keep away from direct sunlight.

**Advice on common storage** Keep away from food, drink and animal feedingstuffs.

**Suitable materials** Coex EVOH (1000L IBC)

**7.3 Specific end uses** Refer to the label and/or leaflet.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Fipronil	120068-37-3	0.035 mg/m <sup>3</sup> (TWA)		OES BCS*
Tributyl phosphate	126-73-8	2.5 mg/m <sup>3</sup> /0.2 ppm (TWA)	2001	IN OEL

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

### 8.2 Exposure controls

#### Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

#### Respiratory protection

Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

#### Hand protection

Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

#### Eye protection

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

#### Skin and body protection

Wear standard coveralls and Category 3 Type 6 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If there is a risk of significant exposure, consider a higher protective type suit. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

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<b>Form</b>	Liquid
<b>Colour</b>	colourless to light yellow
<b>pH</b>	3.1 - 3.3 at 1 % (23 °C) (deionized water)
<b>Flash point</b>	>= 80 °C
<b>Density</b>	ca. 0.86 g/cm <sup>3</sup> at 20 °C
<b>Water solubility</b>	dispersible
<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.

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### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity

**Thermal decomposition** Stable under normal conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.

**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5 Incompatible materials** Store only in the original container.

**10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.

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### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

**Acute oral toxicity** LD50 (rat) > 2,000 mg/kg

**Acute inhalation toxicity** LC50 (rat) > 5.03 mg/l  
Exposure time: 4 h

**Acute dermal toxicity** LD50 (rat) > 2,000 mg/kg

**Skin irritation** Irritating to skin. (rabbit)

**Eye irritation** No eye irritation (rabbit)

**Sensitisation** Non-sensitizing.  
OECD Test Guideline 406, Buehler test

#### Assessment repeated dose toxicity

Fipronil caused specific target organ toxicity in experimental animal studies in the following organ(s): liver. Fipronil caused neurobehavioral effects and/or neuropathological changes in animal studies. Tributyl phosphate did not cause any significant specific adverse effects or target organ toxicity in subchronic toxicity studies.

#### Assessment Mutagenicity

Fipronil was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Tributyl phosphate was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

#### Assessment Carcinogenicity

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Fipronil caused an increased incidence of tumours in rats in the following organ(s): thyroid. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

Tributyl phosphate caused tumours secondary to the chronic irritation in rats (urinary bladder) and mice (liver) at the highest dose tested in oncogenicity studies. Based on these studies, Tributyl phosphate did not demonstrate any oncogenic potential relevant for human risk assessment.

### Assessment toxicity to reproduction

Fipronil caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Fipronil is related to parental toxicity. Tributyl phosphate did not cause reproductive toxicity in a two-generation study in rats.

### Assessment developmental toxicity

Fipronil did not cause developmental toxicity in rats and rabbits.  
Tributyl phosphate did not cause developmental toxicity in rats and rabbits.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish	LC50 (Rainbow trout ( <i>Oncorhynchus mykiss</i> )) 4.5 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates	EC50 (Water flea ( <i>Daphnia magna</i> )) 0.09 mg/l Exposure time: 48 h
Toxicity to aquatic plants	EC50 ( <i>Scenedesmus subspicatus</i> ) 0.074 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient fipronil.

### 12.2 Persistence and degradability

Biodegradability	Fipronil: not rapidly biodegradable
Koc	Fipronil: Koc: 427 - 1278

### 12.3 Bioaccumulative potential

Bioaccumulation	Fipronil: Bioconcentration factor (BCF) 321 Does not bioaccumulate.
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### 12.4 Mobility in soil

Mobility in soil	Fipronil: Slightly mobile in soils
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### 12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment	Fipronil: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
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### 12.6 Other adverse effects

Additional ecological information	No other effects to be mentioned.
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## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

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<b>Product</b>	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.
<b>Contaminated packaging</b>	Empty remaining contents. Rinsed packaging may be acceptable for landfill, otherwise incineration will be required in accordance with local regulations. Not completely emptied packagings should be disposed of as hazardous waste.
<b>Waste key for the unused product</b>	020108 agrochemical waste containing dangerous substances
<b>Legal basis</b>	
<b>Waste key in accordance with Schedule I of the Hazardous Waste Rules, 2008 as amended (India - EP Act):</b>	
29.1 Process wastes/residues	
29.3 Date-expired and off-specification pesticides	

### SECTION 14: TRANSPORT INFORMATION

#### ADR/RID/ADN

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FIPRONIL SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90
Hazchem Code	3Z
Tunnel Code	E

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

#### IMDG

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FIPRONIL SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

#### IATA

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FIPRONIL SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

#### 14.6 Special precautions for user

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See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
No transport in bulk according to the IBC Code.

### SECTION 15: REGULATORY INFORMATION

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### Further information

WHO-classification: III (Slightly hazardous)

Labeling according to Insecticide Rules 1971 as amended. (INDIA)

Class II: Highly toxic  
Colour: bright yellow  
Poison!  
Keep out of the reach of children.

#### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

### SECTION 16: OTHER INFORMATION

#### Text of R-phrases mentioned in Section 3

R21	Harmful in contact with skin.
R22	Harmful if swallowed.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R36/38	Irritating to eyes and skin.
R38	Irritating to skin.
R40	Limited evidence of a carcinogenic effect.
R41	Risk of serious damage to eyes.
R48/25	Toxic: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.

#### Text of the hazard statements mentioned in Section 3

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.

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H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 453/2010 amending Regulation (EU) No 1907/2006 (and any subsequent amendments). This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

## MATERIAL SAFETY DATA SHEET

### Dr. C ROACH GEL

\*\*\*\*\*

ISSUED DATE: MAR. 21. 2016

#### 1 - Identification of the substance and company

##### 1.1 Identification of the substance

Trade Name : Dr. C ROACH GEL  
 Kind of Use : Insecticide

##### 1.2 Supplier

: Sammi Glory Co., Ltd.  
 Rm.1811 Yuwon Golden Tower Officetel,  
 Bujeon-dong, Jin-gu, Rep. of Korea (Zip. 614-731)  
 T. +82 51. 818. 7795. F. +82 51. 818. 7796  
 Email. info@sammiglory.com

#### 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
120068-37-3	Fipronil	0.05%
	Inert ingredient	99.95%

#### 3 - Hazards Identification

Physical hazards : None

Health hazards : None

- Potential Health Effects : Eye ; Non-irritant  
 Skin ; Non-irritant  
 Ingestion ; May be harmful if swallowed  
 Inhalation ; N/A

#### 4 - First Aid Measures

##### Special instructions

In case of accident or sick feeling, immediately take a medical advice, and show this sheet to the physician.  
 TOP BAIT GOLD gel is minimally irritating to the eyes and skin. It is not acutely toxic upon oral or dermal exposure. Untoward effects resulting from over exposure are not anticipated to occur from use of the Bait Gel. Follow the precautions outlined below.

Practical Treatment : If swallowed, drink two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

#### 5 - Fire Fighting Measures

Not Flammable

#### 6 - Accidental Release Measures

Personal precautions : Avoid contact with skin and clothing.  
 Wear suitable protection.

Environmental precautions : Avoid water contamination.

Methods for cleaning up : Clean up with newspaper, or absorbent material. Collect thoroughly into suitable containers. Rinse the polluted area with water and suitable detergents. Collect waste waters for treatment.

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SAMMI GLORY CO., LTD – 1811 YUWON O/T, BUJEON-DONG, JIN-GU, BUSAN, KOREA

TEL : 82-51-818-7795 / 7786, FAX : 82-51-818-7795

E-mail : info@sammiglory.com

## 7 - Handling and Storage

### *Handling*

Special protection measure : When using do not eat, drink. Wash hands thoroughly after handling.

### *Storage*

Sensitivity to damp, light and oxidation : Stable under normal conditions when stored in closed containers.

Special storage requirements : Keep exposed gel away from open food and food contact surfaces.  
Keep out of reach of children. Keep container in a well ventilated place.

Storage conditions : Keep at room temperature.

Shelf life : At least 2 years if properly packed and stored.

## 8 - Exposure Controls, Personal Protection

### *Engineering Controls*

Use adequate ventilation to minimize exposure.

### *Work Practices*

Avoid skin and eye contact.

### *Exposure limit values for workplace air*

ACGIH / NOISH / OSHA : None established

### *Personal protective equipment*

Respiratory protection : No need  
Hand protection : Wear suitable protective gloves.  
Eye protection : No need  
Skin protection : No need

## 9 - Physical and Chemical Properties

1. Physical state : brown gel
2. pH : 6.5 ~ 7.5
3. Melting point : > 45°C
4. Flash point : >200°F(93°C)
5. Autoflammability : about 404°C
6. Explosion hazard : None
7. Oxidizing properties : None
8. Solubility in water : Soluble
8. Specific gravity : 1.19

## 10 - Stability and Reactivity

Hazardous reactions	: None
Sensitivity to jolting	: None
Conditions to avoid	: Incompatible materials.
Materials to avoid	: Water
Hazardous decomposition products	: -

- \* Stable under normal use and storage conditions.
- \* Product will stain porous surfaces.

## 11 - Toxicological Information

### Acute toxicity:

- LD50 oral (rat, Pure product)	: 95~97 mg/kg
- LD50 dermal (rat, Pure product)	: >2,000 mg/kg

### Toxicological data(Data for the formulated product)

- Rat, Oral LD50 (combined sexes) > 5000mg/kg
- Rabbit, Dermal LD50 (combined sexes) > 4000mg/kg
- Rabbit, Eye irritation - Slightly to moderately irritating
- Rabbit, Skin irritation - Not irritating
- Guinea pig, Dermal Sensitizer - Not a sensitizer

## 12 - Environmental information

### 12.1 Residue in the environment

Soil	: Does not persist long and can be easily broken down.
Ground water	: Insoluble in water and not readily hydrolysed.

### 12.2 Toxic effects on organisms

#### Aquatic toxicity (Pure product)

- LC <sub>50</sub> Rainbow trout	: 248 µg/l
- LC <sub>50</sub> Bluegill sunfish	: 85µg/l

#### Toxicity to birds (Pure product)

- LD <sub>50</sub> - Acute oral - Mallard ducks	: >2000 mg/Kg
- LD <sub>50</sub> - Acute oral - Ring-necked pheasant	: 31 mg/Kg

## 13 - Disposal Considerations *Dispose of in a manner consistent with local regulations.*

Product	: Wastes resulting from the use of this product may be disposed on site or at an approved waste disposal facility. Securely wrap original container in several layers of newspaper and discard in trash.
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