

 **Dow AgroSciences**



EMPIRE[®] 20

A SURFACE RESIDUAL INSECTICIDE for the control of COCKROACHES and other CRAWLING INSECT PESTS in public health and hygiene

Contains 208 g/litre (20.0% w/w) of chlorpyrifos formulated as a micro-encapsulated aqueous based concentrate.

To avoid risks to man and the environment, comply with the instructions for use.

This product is approved under the Control of Pesticides Regulations 1986, for use as directed.

HSE 4844 (PCS 93025)



**DANGEROUS FOR
THE ENVIRONMENT**

Insecticide

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P0023489303

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STATUTORY CONDITIONS RELATING TO USE

FOR USE ONLY AS AN INSECTICIDE

FOR USE ONLY BY PROFESSIONAL OPERATORS

Dilute 1 litre of product with a minimum of 40 litres of water then apply 1 litre of diluted product per 20 square metres of surface. Repeat treatments must be at least 7 days apart.

The (COSHH) Control of Substances Hazardous to Health Regulations 2002 may apply to the use of this product at work.

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING.

WEAR SUITABLE GLOVES.

WEAR EYE/FACE PROTECTION.

AVOID EXCESSIVE CONTAMINATION OF COVERALLS AND LAUNDRY REGULARLY.

DO NOT BREATHE SPRAY. Otherwise wear respiratory protective equipment and eye protection (see HSE Guidance Booklet HS(G)53: "The Selection, Use and Maintenance of Respiratory Protective Equipment - A Practical Guide").

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

TOXIC TO AQUATIC ORGANISMS. MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

DO NOT CONTAMINATE FOOD STUFFS, EATING UTENSILS OR FOOD CONTACT SURFACES other than storage boxes or containers.

COVER WATER STORAGE TANKS before application.

UNPROTECTED PERSONS AND ANIMALS SHOULD BE KEPT AWAY FROM TREATED AREAS UNTIL SURFACES ARE DRY.

DO NOT APPLY DIRECTLY TO ANIMALS.

REMOVE OR COVER ALL FISH TANKS AND BOWLS before application.

DO NOT CONTAMINATE waterbodies or watercourses with chemical or used container.

THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way.

READ ALL PRECAUTIONS BEFORE USE

HSE 4844

PRECAUTIONS

This product contains an organophosphorus compound. DO NOT USE if under medical advice NOT to work with such compounds.

WASH ANY CONTAMINATION from skin or eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after use.

KEEP ONLY IN THE ORIGINAL CONTAINER.

KEEP CONTAINER TIGHTLY CLOSED.

KEEP IN A SAFE PLACE.

USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

DIRECTIONS FOR USE

EMPIRE* 20 should be applied as a crack, crevice and spot treatment on hard porous and non-porous surfaces. Do not apply as an overall spray.

PESTS CONTROLLED

EMPIRE 20 is recommended for the control of cockroaches and other crawling insect targets such as ants, crickets, firebrats, silverfish and other bristletails, spiders, stored product insects (carpet beetles, mites, rice weevils, flour beetles, Indian meal moths, Mediterranean flour moths), ticks, earwigs, beetles, moths, centipedes, millipedes and weevils that may be encountered by chance during the main treatment.

AREAS OF USE

Domestic, public, municipal, industrial and commercial buildings, hospitals (non-occupied wards).

Cargo holds of ships, aircraft and container lorries.

As a public hygiene insecticide in food storage and processing establishments.

Outdoors in sheds, outhouses, garages, on paths and outside surfaces of buildings.

Notes on Areas of Use

ALL BATS ARE PROTECTED UNDER THE WILDLIFE AND COUNTRYSIDE ACT 1981. BEFORE TREATING ANY STRUCTURE USED BY BATS, CONSULT ENGLISH NATURE, SCOTTISH NATURAL HERITAGE OR THE COUNTRYSIDE COUNCIL FOR WALES.

Not for use on uncovered food or grain, in grain storage areas or on food contact surfaces.

Not for use in drains.

In common with other surface residual insecticides, spray operators should inform their customers that EMPIRE 20 has residual action and children and animals should avoid contact with treated surfaces.

Do not apply to unprotected electrical equipment, eg motor housing, junctions or switch boxes.

Do not apply to surfaces that may be stained or damaged by water.

When spraying overhead, cover all surfaces below the area being treated with polythene sheeting or other material and dispose of safely.

SPRAYED SURFACES

EMPIRE 20 is designed for application to inert materials and may be sprayed onto porous and non-porous surfaces. These include concrete, wood, hardboard, steel, lime-washed walls, plastics, synthetic tiles and carpets.

APPLICATION RATES

Select the correct application rate (see table) according to the level of pest infestation and whether extended residual control is required. Apply 1 litre of the diluted spray to a minimum of 20 square metres of surface.

Level of Pest Infestation	Millilitres of EMPIRE 20 per 5 litres of water
Light infestation/maintenance treatment	50
Heavy infestation	100
Extended residual control for outdoor perimeter application	125

MIXING AND SPRAYING PROCEDURE

Ensure the sprayer is free from contamination and fill with clean water. Invert the EMPIRE 20 container several times immediately before use to ensure thorough mixing of the concentrate. Hold the container upright and loosen the child proof dispensing chamber cap. Gently squeeze the bottle and fill the chamber to the required level (see application rates) and then release the pressure. Remove the dispensing chamber cap and pour EMPIRE 20 into the spray tank. Replace and tighten the cap after dispensing. Ensure thorough mixing of the dilute spray by shaking the sprayer before application.

For spot application apply as a low pressure coarse spray using any hand-held or knapsack sprayer. For application to cracks and crevices apply as a pinstream spray or by direct placement of a small volume of the spray solution eg with a paint brush.

PEST TREATMENT GUIDE NOTES FOR COCKROACHES AND ANTS

Cockroaches

Treat where insects are found or normally occur, eg, dark corners of rooms behind cupboards, cracks and crevices in walls, along and behind skirting boards, beneath and behind sinks, stores, refrigerators, refrigeration units and cabinets and around plumbing and other utility installations.

Ants

Treat ant trails and wherever these pests may find an entrance. EMPIRE 20 may be applied as an outside perimeter treatment to provide a complete barrier to entry. It may also be applied to individual areas where the pest may gain access, eg around doors and windows.

Dow AgroSciences Conditions of Supply

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

SAFETY DATA SHEET

This safety data sheet does not form part of the label approved under the Control of Pesticides Regulations 1986. Following the instructions on the pesticide label for the specified uses should ensure that the product is used safely and efficaciously for those uses.

Product Name: **EMPIRE* 20 INSECTICIDE (GF-846)**

LV70: 35347

Issue Date: Feb. 95

Ref: H8615

Revised: May 04 (Section(s) 2-5, 8, 9, 11-13, 15 & 16)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Dangerous components (see section 16 for complete R-phrases):

			CAS	EC No
Chlorpyrifos	20 %	T; R25, N; R50/53	002921-88-2	220-864-4
Proprietary petroleum solvent	10 %			
Inert ingredients	Balance			

3. HAZARDS IDENTIFICATION

Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion

Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by a physician.

Eye Contact

Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact

Wash skin thoroughly with soap and water.

Inhalation

Remove to fresh air. Consult a physician.

Note to Physician

This material contains a cholinesterase inhibitor. Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PA M/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Water fog or fine spray. Carbon dioxide. Dry chemical powder. Foam.

Hazardous Combustion Products

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Combustion products include: Hydrogen chloride. Sulphur oxides. Nitrogen oxides.

Protection of Firefighters

Wear protective clothing and use self-contained breathing apparatus.

Additional Information

Keep containers cool by spraying with water. Contain run-off to prevent entry into water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear appropriate safety clothing and eye/face protection (see Section 8).

Environmental Precautions

Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

Methods of Cleaning Up

Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

7. HANDLING AND STORAGE

Handling

Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work.

Storage

Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chlorpyrifos: Dow AgroSciences IHG is 0.1 mg/m³ (skin).

Engineering Controls

Good general ventilation should be sufficient for most conditions.

Respiratory Protection

For most conditions, no respiratory protection should be needed.

However, when airborne exposure guidelines and/or comfort levels may be exceeded use an approved air-purifying respirator.

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Hand/Skin Protection

Wear clean, long-sleeved, body-covering clothing. For emergency conditions: Use protective clothing impervious to this material. Use chemical resistant gloves classified under standard EN 374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Nitrile. Polyvinyl chloride ("PVC" or "vinyl"). Neoprene. Avoid gloves made of: Polyvinyl alcohol ("PVA").

Eye/Face Protection

Eye protection should not be necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: suspension
Colour	: white
Odour	: low
Water solubility	: suspends
Flash point	: none; boils before flashing
Explosive properties	: not explosive
Flammability	: not flammable
Density	: 1.03 (EEC: A3 METHOD)
Surface tension	: 35.5 mN/m (25 deg.C) (neat)
Autoflammability	: >400 deg.C

10. STABILITY AND REACTIVITY

Chemical Stability

Is stable under normal storage conditions.

Conditions to Avoid

Avoid extremes of temperature.

Materials to Avoid

Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Ingestion

Low toxicity if swallowed.

The oral LD₅₀ for rats is >5000 mg/kg.

Skin Contact

The dermal LD₅₀ for rabbits is >5000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Prolonged contact is essentially non-irritating to skin.

Sensitisation

Non-sensitising to guinea pig skin.

Eye Contact

Essentially non-irritating to eyes.

Inhalation

No adverse effects anticipated by this route of exposure incidental to proper handling.

Other Information

Excessive exposure may cause organophosphate type cholinesterase inhibition. Not carcinogenic. Not mutagenic. Not toxic for reproduction.

12. ECOLOGICAL INFORMATION**Persistence and Degradability**

Assessment largely or completely based on data for active ingredient. Does not leach in soils and is therefore unlikely to contaminate ground water. Half-life in soils is dependent on soil type and conditions and is approximately 2-34 days.

Aquatic Toxicity

Material is toxic to fish on an acute basis (1 mg/L <LC₅₀ <10 mg/L).

Avian Toxicity

Material is practically non-toxic to birds on an acute basis (LD₅₀ >2000 mg/kg).

13. DISPOSAL CONSIDERATIONS

Toxic to aquatic organisms.

Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

14. TRANSPORT INFORMATION**Road & Rail**

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID,N.O.S. (Contains Chlorpyrifos 20% w/w)

Truck/Rail ADR/RID : 9 Label : 9

Classification Code : M6

Packing Group : III

Kemler Code : 90 UN Number : 3082

Tremcard Nr. CEFIC : 90GM6-III

Sea

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID,N.O.S. (Contains Chlorpyrifos 20% w/w)

Sea - IMO/IMDG Class : 9 UN Nr : 3082 Label : 9

Packing Group : III EMS :

Marine Pollutant : Y (Y/N)

Air

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID,N.O.S. (Contains Chlorpyrifos)

Air-ICAO/IATA Class : 9 UN Nr : 3082 Label : 9

Sub Class :

Packing Group : III Pack Instr. Passenger : 914

Pack Instr. Cargo : 914

Remarks : Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Hazard Symbol : N - Dangerous for the Environment

Risk Phrases : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R51/53).

Safety Phrases : This material and its container must be disposed of in a safe way (S35).
Use appropriate containment to avoid environmental contamination (S57).

Refer to the Product Label for full Local Regulatory Authority label precautions.

16. OTHER INFORMATION**Risk-phrases in Section 2**

R25 - Toxic if swallowed.

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

The information herein is given in good faith and to the best of our knowledge but no warranty, express or implied, is made.

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