



Safety Data Sheet (SDS) CYP200EC/01

According to SANS 11014:2010 & 10234:2008

Revision Date: 2017/06/07

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Version: 1.0

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: **CYPERIN 200 EC**

Additional information: Product code CYP 200 EC/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Insecticide.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

NULANDIS, A Division of AECL Limited
14 Field Road, LILANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946

Poisons Information Helpline: 0861 555 777

Nulandis: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to:

SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Flammable liquid (Category 3)	H226
Acute toxicity oral (Category 4)	H302
Aspiration hazard (Category 1)	H304
Serious eye damage (Category 1)	H318
Germ cell mutagenicity (Category 1B)	H340
Carcinogenicity (Category 1B)	H350
STOT SE 3	H335
STOT RE 2	H373
Hazardous to the aquatic environment (Acute 1)	H400
Hazardous to the aquatic environment (Chronic 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: Flammable liquid.

The most important adverse human health effects: Harmful if swallowed but may be fatal if product enters airways, causes serious eye damage.



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Label elements



Hazard pictograms:

Signal Word: Danger

Hazard Statements: H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H318 Causes serious eye damage. H373 May cause damage to organs through prolonged or repeated exposure. H340 May cause genetic defects. H350 May cause cancer. H335 May cause respiratory irritation. H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat, hot surfaces, open flames and other ignition sources. No smoking. P260 Do not breathe mist/vapours/ spray. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell. P308+P313 If exposed or concerned: Get medical attention. P403+ P233 Store in a well-ventilated place. Keep container tightly closed.

Special labelling of certain mixtures:

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
	EC-No.		EC1272/2008
Light aromatic petroleum	64742-95-6	60-70%	Flammable liquid (Category 3) H226. Aspiration hazard (Category 1) H304. Germ cell mutagenicity (Category 1B) H340. Carcinogenicity (Category 1B) H350.
	265-199-0		
Medium aliphatic petroleum solvent	64742-88-7	1-10%	Aspiration hazard (Category 1) H304, STOT SE RE 1 H372 (central nervous system)
	265-191-7		
Cypermethrin tech 92%	52315-07-8	1-10%	Acute toxicity oral (Category 3) H301. STOT SE 3 H335, STOT RE 2 H373. Aquatic acute 1 H400. Aquatic chronic 1 H410. M=1000
	257-842-9		
Calcium dodecylbenzene sulphonate	-	1-10%	Skin irritant (Category 2) H315. Serious eye damage (Category 1) H318.
	-		

For full text of H statements see section 16

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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, immediately transfer patient to nearest hospital or medical centre, warning by telephone of the estimated arrival time so that the start of treatment is not delayed. Get medical attention immediately.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Most important symptoms and effects, both acute and delayed:

Inhalation: Maybe fatal if swallowed and product enters airways.

Ingestions: Harmful if swallowed.

Skin contact: May cause skin irritations.

Eye contact: Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed:

Medical attention is required if exposure to the product. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Carbon dioxide, foam dry chemical and water fog.

SMALL FIRE: See above.

LARGE FIRE: See above.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

During a fire, irritating and possibly toxic gasses may be generated by thermal decomposition or combustion. Closed container may explode if pressure builds up. Toxic or irritating gas may be generated during fire.

Advice for fire-fighters:

Isolate the fire area and evacuate downwind. Remove containers from fire area if possible and without risk. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours, fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent. Dyke fire control water for later disposal. Avoid pollution of waterways. Contain water used for firefighting for later disposal, avoid the accumulation of polluted run-off from the site.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Keep all personal away toxic by inhalation.

For emergency responders: Use an approved/certified respirator or equivalent, isolate the spill area and limit the access to emergency responders only. Avoid any contact with spilled material, use adequate protective clothes and gloves.

Environmental precautions:

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapours. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth

For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Use adequate protective equipment to avoid direct contact of product. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store product in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL):

None

Biological exposure indices (BEI):

None

Additional exposure limits under the conditions of use:

Exposure control:

Appropriate engineering controls: Provide exhaust ventilation or other engineering controls. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use chemical safety goggles or face mask.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Respiratory protection is required; use an approved air-purifying respirator.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Liquid.

Colour: Pale clear yellow.

Odour: Aromatic.

Odour threshold: No information available.

pH (at concentration): 7.5-8.5 (1% solution)

Melting point/range (°C): No information available.

Boiling point/range (°C): No information available.

Flash point (°C): 46 °C (ASTM D93).

Evaporation rate: No information available.

Flammability (solid, gas, liquid): Flammable liquid.

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Density (25°C): 0.935-0.950 g/mL.

Water solubility (g/l) at 20°C: No information available.

n-Octanol/Water partition coefficient: No information available.

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity: No information available.

Physical hazards:

Explosive properties: Not explosive.

Oxidising properties: Not an oxidiser.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: No information available.

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

The product is stable under normal conditions. Avoid elevated temperatures.

Chemical stability:

Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

Heat, sparks, flame and build-up of static electricity.

Incompatible materials:

Incompatible with alkaline materials.

Hazardous decomposition products:

Carbon monoxide, toxic gases may be released in thermal decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Method: No Information available.

Dosage: No Information available.

Routes of administration: No Information available.

Results: No Information available.

Absorption: No Information available.

Distribution: No Information available.

Metabolism: No Information available.

Excretion:

Information on toxicological effects:

Acute toxicity:

Cypermethrin:

Oral: LD₅₀ for rat 250-4150 mg/kg.

Dermal LD₅₀ for rats >4920 mg/kg, for rabbits >2460 mg/kg.

Inhalation LC₅₀ (4 h) for rats 2.5 mg/ℓ.

C13 Oxo alcohol ethoxylate with 8 EO:

Oral: LD₅₀ for rat 500-2000 mg/kg

Chronic toxicity: No information available.

Skin corrosion/irritation:

Aromatic petroleum solvent:

Mild irritant for rabbits. (Primary Irritation Index: greater than 0.5 but less than 3). Based on testing of similar products and/or the components.

Cypermethrin:

Slight skin irritant for rabbits.

Eye Irritation

Aromatic petroleum solvent:

Mild irritant for rabbits. (Draize score: greater than 6 but 15 or less). Based on testing of similar products and/or the components

Cypermethrin:

Slight eye irritant for rabbits.



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Respiratory or skin sensitization:

Aromatic petroleum solvent:

This product was not a skin sensitizer when tested in a Modified Buehler Guinea Pig Sensitization Assay

Cypermethrin:

Weak sensitizer.

Germ cell mutagenicity:

Aromatic petroleum solvent:

This product tested negative in a series of mutagenic tests.

Carcinogenicity:

Aromatic petroleum solvent:

Certain straight-run middle distillates have been found to produce skin tumours in laboratory mouse skin-painting tests, but these have usually been associated with a high level of skin irritation. Laboratory tests have indicated that the irritation can produce tumours. Therefore, if the precautions outlined in this SDS are followed to minimize repeated or prolonged skin contact which could cause irritation, these oils should pose no carcinogenic hazard to humans.

Reproductive toxicity:

Aromatic petroleum solvent:

Teratogenicity: Negative in a series of genetic assays and teratological studies.

STOT-single exposure:

Aromatic petroleum solvent:

Respiratory irritation, dizziness, nausea and loss of consciousness.

STOT-repeated exposure:

Aromatic petroleum solvent:

Prolonged repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Animal studies with similar materials by inhalation for 12 months showed no significant neurotoxic, blood, kidney or other effects.

Aspiration hazard:

Aromatic petroleum solvent:

If aspirated into the lungs may cause chemical pneumonitis.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Aromatic petroleum solvent:

Fish: LC/EC₅₀ (96 h) for Salmon 8.1 mg/ ℓ.

Aquatic organisms: LC/EC₅₀ (8 h) for Green algae 9.4 mg/ ℓ.

Cypermethrin:

Birds: Acute LD₅₀ for Mallard ducks >10 000 mg/kg, chickens >2000 mg/kg.

Fish: LC₅₀ (96 h) for Rainbow trout 0.69 mg/ ℓ, Sheepshead minnows 2.37 µg/ ℓ; under field conditions, fish are not at risk from normal agricultural usage.

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Daphnia: LC₅₀ (48 h) 1.15 µg/ ℓ.

Bees: Highly toxic to honeybees in laboratory tests, but field applications at recommended dosages do not put hives at risk. LD₅₀ (24 h) (oral) 0.035 µg/bee, (topical) 0.02 µg/bee.

Other beneficial spp. Not toxic to *Collembola*.

Persistence and degradability:

Aromatic petroleum solvent: Elimination information

Readily Biodegradable

Water solubility: 500 mg/ ℓ @ 20 C.

Bioconcentration factor (BCF) < 100.

This environmental assessment is based on test data or is estimated data.

Cypermethrin: Biological degradation is rapid and consequently levels of cypermethrin and its degradation products in soil and surface waters are very low.

Bioaccumulative potential:

No information available.

Mobility in soil

Cypermethrin:

Soil photolysis DT₅₀ (light) 31 d; DT₅₀ (dark) 193 d; formation of metabolites 3-phenoxybenzoic acid (17% at day 30), phenoxybenzoic alcohol (2.7% at day 30), bound residue (13.3% at day 30), mineralisation (6.2% at day 30); soil degradation, median DT₅₀ 35 d. K_{oc} 26 492–144 652; K_f 821–1042; not pH dependent. In river water, rapid degradation occurs, DT₅₀ c. 5 d. DT₅₀ for photochemical oxidative degradation in air 3.47 h.

Results of PBT& vPvB assessment:

No information available.

Other adverse effects:

No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	1268	1268	1268
UN Proper shipping name:	FLAMMABLE LIQUID, PETROLEUM PRODUCTS N.O.S	FLAMMABLE LIQUID, PETROLEUM PRODUCTS N.O.S	FLAMMABLE LIQUID, PETROLEUM PRODUCTS N.O.S
Transport hazard class:	3 (9)	3 (9)	3 (9)
Packaging group:	III	III	III

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Marine pollutant:	Yes	Yes	Yes
Special precautions for user:	No information	No information	No information
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	No information	No information	No information

Inland waterways: Not required.

Emergency response information: No information available.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management: Waste Act 59 of 2008.

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

GHS aligned:

Relevant classification and H statements (number and full text):

STOT RE 1- Specific Target Organ Toxicity repeated exposure (Category 1)

STOT SE-3 Specific Target Organ Toxicity single exposure (Category 3)

Aquatic acute 1: Hazardous to the aquatic environment (Acute 1)

Aquatic chronic 1: Hazardous to the aquatic environment (Chronic 1)

H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H318 Causes serious eye damage. H340 May cause genetic defects. H350 May cause cancer. H335 May cause respiratory irritation. H373 May 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.

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.



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This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.