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1. Identification

Product identifier used on the label

565 PLUS XLO FORMULA 2 CONTACT INSECTICIDE

Recommended use of the chemical and restriction on use

Recommended use*: insecticide

Details of the supplier of the safety data sheet

Company:
BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

Contact address:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932

USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Registrant:

St. Louis, MO 63122

3568 Tree Court Industrial Blvd.

Whitmire Micro-Gen Research Laboratories, Inc.

Other means of identification

Substance number: 458813 EPA Register number: 499-290

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

^{*} The "Recommended use" identified for this product is provided solely to comply with a US Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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Skin Corr./Irrit. 2 Skin corrosion/irritation

Eye Dam./Irrit. 2B Serious eye damage/eye irritation

STOT SE 3 (Vapours may cause Specific target organ toxicity — single exposure

drowsiness and

dizziness.)

Flam. Aerosol 1 Flammable aerosols

Label elements

Pictogram:



Signal Word: Danger

Hazard Statement:

H222 Extremely flammable aerosol.

H320 Causes eye irritation. H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

Precautionary Statements (Prevention):

P210 Keep away from heat, hot surfaces, sparks, open flames and other

ignition sources. No smoking.

P280 Wear protective gloves.

P271 Use only outdoors or in a well-ventilated area.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use. P260 Do not breathe dust/gas/mist/vapours.

P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.

P362 + P364 Take off contaminated clothing and wash before reuse.

Precautionary Statements (Storage):

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P410 + P412 Protect from sunlight. Do no expose to temperatures exceeding 50°C/

122°F.

P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection

point.

Hazards not otherwise classified

Labeling of special preparations (GHS):

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The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 0 - 1 % dermal

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 0 - 1 % oral

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 5 - 7 % Inhalation - vapour

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 6 - 7 % Inhalation - mist

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

CAUTION:

EXTREMELY FLAMMABLE.

KEEP OUT OF REACH OF CHILDREN.

KEEP OUT OF REACH OF DOMESTIC ANIMALS.

HARMFUL IF SWALLOWED.

HARMFUL IF ABSORBED THROUGH SKIN.

Avoid contact with the skin, eyes and clothing.

Wash thoroughly after handling.

Aerosol container contains flammable gas under pressure.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Content (W/W)	<u>Chemical name</u>
8003-34-7	0.5 %	Pyrethrins
67-64-1	50.0 - 75.0 %	Acetone
64742-47-8	1.0 - 3.0 %	Distillates (petroleum), hydrotreated light
51-03-6	1.0 - 3.0 %	Piperonylbutoxide
113-48-4	0.3 - 3.0 %	n-Octyl bicycloheptene dicarboximide

4. First-Aid Measures

Description of first aid measures

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known. Hazards: Vomiting may cause aspiration pneumonia due to the ingredients.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

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5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: carbon dioxide, foam, dry powder, water spray

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide,

Aerosol container contains flammable gas under pressure. Pressure inside container is increased when heated, and may cause explosion. If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water. A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities. This product is regulated by CERCLA ('Superfund').

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Provide means for controlling leaks and spills. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact with the

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substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

Aerosol container contains flammable gas under pressure. The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition; heat, sparks. open flame. Avoid extreme heat. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Protect containers from physical damage. Store in a cool, dry, well-ventilated area. Avoid all sources of ignition: heat, sparks, open flame.

Storage stability:

May be kept indefinitely if stored properly.

If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet.

Protect from temperatures above: 130 °F

Explosive at or above indicated temperature.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

Acetone	OSHA PEL	PEL 1,000 ppm 2,400 mg/m3 ; STEL value 1,000 ppm 2,400 mg/m3 ; TWA value 750 ppm 1,800 mg/m3 ;
	ACGIH TLV	TWA value 500 ppm; STEL value 750 ppm;
carbon dioxide	OSHA PEL	PEL 5,000 ppm 9,000 mg/m3; TWA value 10,000 ppm 18,000 mg/m3; STEL value 30,000 ppm 54,000 mg/m3;
	ACGIH TLV	TWA value 5,000 ppm; STEL value 30,000 ppm;
Distillates (petroleum),		
hydrotreated light	ACGIH TLV	TWA value 200 mg/m3 Non-aerosol (total hydrocarbon vapor); Application restricted to conditions in which there are negligible aerosol exposures.

Skin Designation Non-aerosol (total

hydrocarbon vapor);

The substance can be absorbed through the skin.

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

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Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form: liquid, aerosol

Odour: characteristic, of acetone

Odour threshold: Not determined due to potential health

hazard by inhalation.

Colour: amber, cloudy

pH value: approx. 8 - 10 (1 %(m), 20 - 25 °C)

Flammability: not applicable

Flammability of Aerosol > 18 in (ASTM D 3065

Products:

NFPA 30B flammability:

Level 2 Aerosol

Lower explosion limit: 3.4 %(V) The product has not been tested. The

statement has been derived from the properties of the individual components.

Upper explosion limit: 18 %(V) The product has not been tested. The statement has been derived from the

properties of the individual components.
The product has not been tested. The

Autoignition: 350 °C The product has not been tested. The statement has been derived from the

properties of the individual components.

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Density: approx. 0.86 (20 °C)

g/cm3

Vapour density: not applicable Partitioning coefficient n- not applicable

octanol/water (log Pow):

Thermal decomposition: carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen

oxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To

avoid thermal decomposition, do not overheat.

Viscosity, dynamic: 0.99 mPa.s (20 °C)

Solubility in water: slightly soluble Evaporation rate: slightly soluble not applicable

Other Information: If necessary, information on other physical and chemical

parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is chemically stable.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Incompatible materials

No substances known that should be avoided.

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

11. Toxicological information

Primary routes of exposure

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Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Slightly toxic after single ingestion. Slightly toxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

<u>Oral</u>

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg No mortality was observed.

Inhalation

Type of value: LC50

Species: rat Value: > 7.4 mg/l

Type of value: LC50

Species: rat Value: > 2.1 mg/l

No mortality was observed.

Dermal

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg No mortality was observed.

Assessment other acute effects

Assessment of STOT single:

Possible narcotic effects (drowsiness or dizziness).

Irritation / corrosion

Assessment of irritating effects: May cause slight but temporary irritation to the eyes. May cause slight irritation to the skin.

Skin

Species: rabbit Result: non-irritant

May cause slight irritation to the skin.

<u>Eye</u>

Species: rabbit

Result: Slightly irritating.

May cause slight irritation to the eyes.

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Species: guinea pig Result: Non-sensitizing.

Chronic Toxicity/Effects

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Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Piperonyl butoxide

Assessment of repeated dose toxicity: The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the liver after repeated inhalation of high doses. Repeated dermal uptake of the substance did not cause substance-related effects.

Information on: n-Octyl bicycloheptene dicarboximide

Assessment of repeated dose toxicity: The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyrethrum

Assessment of carcinogenicity: The results of various animal studies gave no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Not Likely to Be Carcinogenic to Humans.

Information on: Piperonyl butoxide

Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. The US EPA has classified this substance with the rating of 'C', possible human carcinogen.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

<u>Teratogenicity</u>

Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Other Information

Misuse can be harmful to health.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

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12. Ecological Information

Toxicity

Toxicity to fish

Information on: pyrethrum

LC50 (96 h) 0.0052 mg/l, Oncorhynchus mykiss (static)

No observed effect concentration 0.0019 mg/l, Pimephales promelas

LC50 (96 h) 0.01 mg/l, Lepomis macrochirus

Information on: Piperonyl butoxide

LC50 (96 h) 6.12 mg/l, Oncorhynchus mykiss (other)

Information on: dimethyl ether

No observed effect concentration (96 h) > 4,000 mg/l, Poecilia reticulata (other, semistatic)

The product is highly volatile. Tested in a closed test system.

Aquatic invertebrates

Information on: Piperonyl butoxide

EC50 (48 h) 0.51 mg/l, Daphnia magna (other)

Information on: dimethyl ether

No observed effect concentration (48 h) > 4,000 mg/l, Daphnia magna (other, static)

The product is highly volatile. Tested in a closed test system.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential

Information on: pyrethrum

Bioconcentration factor: 471

Accumulation in organisms is not to be expected.

Information on: Piperonylbutoxide

Bioconcentration factor: 91 - 380 (28 d), Lepomis macrochirus (OECD Guideline 305 E)

Mobility in soil

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Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyrethrum

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Information on: Piperonylbutoxide

Adsorption to solid soil phase is not expected.

Information on: n-Octyl bicycloheptene dicarboximide

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is expected.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Do not cut, puncture, crush, or incinerate empty aerosol containers. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Empty aerosol cans may meet the definition of RCRA D003. Consult local and/or regional EPA for further guidance.

14. Transport Information

Land transport

USDOT

Hazard class: 2.1
ID number: UN 1950
Hazard label: 2.1, EHSM

Proper shipping name: AEROSOLS (contains DIMETHYLETHER)

Sea transport

IMDG

Hazard class: 2.1

ID number: UN 1950

Hazard label: 2.1, EHSM

Marine pollutont: VES

Marine pollutant: YES

Proper shipping name: AEROSOLS (contains DIMETHYLETHER)

Air transport

IATA/ICAO

Hazard class: 2.1 ID number: UN 1950

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Hazard label: 2.1

Proper shipping name: AEROSOLS, FLAMMABLE (contains DIMETHYLETHER)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Acute; Chronic

EPCRA 313:

<u>CAS Number</u> <u>Chemical name</u> 51-03-6 Piperonylbutoxide

 CERCLA RQ
 CAS Number
 Chemical name

 5000 LBS
 67-64-1
 Acetone

 100 LBS
 115-10-6
 dimethyl ether

 1 LBS
 8003-34-7
 Pyrethrins

NFPA Hazard codes:

Health: 1 Fire: 3 Reactivity: 1 Special:

Labeling requirements under FIFRA

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION:

EXTREMELY FLAMMABLE.

KEEP OUT OF REACH OF CHILDREN.

KEEP OUT OF REACH OF DOMESTIC ANIMALS.

HARMFUL IF SWALLOWED.

HARMFUL IF ABSORBED THROUGH SKIN.

Avoid contact with the skin, eyes and clothing.

Wash thoroughly after handling.

Aerosol container contains flammable gas under pressure.

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2015/02/12

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in

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a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

END OF DATA SHEET