



## Safety Data Sheet

### TATTOO® C SUSPENSION CONCENTRATE FUNGICIDE

SDS Number: 102000008825

SDS Version 1.2

Revision Date: 06/06/2013

Print Date: 07/13/2013

## SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

<b>Product name</b>	TATTOO® C SUSPENSION CONCENTRATE FUNGICIDE
<b>SDS Number</b>	102000008825
<b>Product code (UVP)</b>	05934664
<b>PCP Registration No.</b>	24544
<b>Product Use</b>	Fungicide

Bayer CropScience Inc  
 #200, 160 Quarry Park Blvd, SE  
 Calgary, Alberta T2C 3G3  
 Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)  
 For Product Information call: 1-888-283-6847

## SECTION 2. HAZARDS IDENTIFICATION

*NOTE: Please refer to Section 11 for detailed toxicological information.*

<b><u>Emergency Overview</u></b>	Danger! Corrosive to eyes. Causes eye damage. Harmful if swallowed or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing spray mist.
<b>Physical State</b>	liquid suspension
<b>Odor</b>	weak characteristic
<b>Appearance</b>	light grey
<b>Exposure routes</b>	Eye contact, Skin contact, Skin Absorption, Ingestion, Inhalation
<b>Immediate Effects</b>	
<b>Eye</b>	Corrosive to eyes. Causes eye damage. May cause severe eye irritation. Do not get in eyes.
<b>Skin</b>	Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not get on skin or clothing.
<b>Ingestion</b>	Harmful if swallowed. Do not take internally.
<b>Inhalation</b>	Avoid breathing spray mist.



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<b>Chronic or Delayed Long-Term</b>	This product or its components may have target organ effects.
<b>Medical Conditions Aggravated by Exposure</b>	Individuals with allergic history or pre-existing dermatitis should use extra care in handling this product.
<b>Potential Environmental Effect</b>	Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Propamocarb hydrochloride	25606-41-1	31.00
Chlorothalonil	1897-45-6	31.00
1,2-Propanediol	57-55-6	2.00

**SECTION 4. FIRST AID MEASURES**

<b>General</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</b>	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
<b>Skin</b>	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
<b>Notes to physician Signs and Symptoms</b>	Gastrointestinal discomfort Skin, eye and mucous membrane irritation Erythema Sensitisation Bloody urine
<b>Hazards</b>	Risk of respiratory disorders. This product, although being a carbamate, is NOT a cholinesterase inhibitor.



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**Treatment** There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. 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. Contraindication: atropine.

**SECTION 5. FIRE FIGHTING MEASURES**

**Flash point** > 100 °C / > 212 °F  
No flash point - Determination conducted up to the boiling point.

**Autoignition temperature** no data available

**Lower Flammability Limit** no data available

**Upper Flammability Limit** no data available

**Explosiveness** Not explosive

**Fire and Explosion Hazards** Dangerous gases are evolved in the event of a fire.

**Suitable extinguishing media** Water spray, Dry powder, Carbon dioxide (CO2), Foam

**Fire Fighting Instructions** Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.  
  
Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions** Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.



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**SECTION 7. HANDLING AND STORAGE**

- Handling procedures** Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.
- Keep away from heat and sources of ignition.
- Storing Procedures** Store in original container and out of the reach of children, preferably in a locked storage area. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Protect from freezing.
- Work/Hygienic Procedures** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
- Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

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

- General Protection** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.
- Eye/Face Protection** Chemical resistant goggles must be worn.
- Hand protection** Chemical resistant nitrile rubber gloves
- Body Protection** Wear long-sleeved shirt and long pants and shoes plus socks.
- Respiratory protection** When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

**Exposure Limits**

Chlorothalonil	1897-45-6	OES BCS*	TWA	0.2 mg/m3
Propamocarb hydrochloride	25606-41-1	OES BCS*	TWA	1.1 mg/m3
1,2-Propanediol	57-55-6	CAD ON OEL	TWAEV	50 ppm
		CAD ON OEL	TWAEV	10 mg/m3

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



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#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	light grey
<b>Physical State</b>	liquid suspension
<b>Odor</b>	weak characteristic
<b>pH</b>	6.0 - 7.5 (10 %) at 23 °C
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	ca. 1.21 g/cm <sup>3</sup> at 20 °C
<b>Evaporation rate</b>	no data available
<b>Boiling Point</b>	ca. 100 °C / 212 °F
<b>Melting / Freezing Point</b>	no data available
<b>Water solubility</b>	dispersible
<b>Minimum Ignition Energy</b>	no data available
<b>Decomposition temperature</b>	no data available
<b>Partition coefficient: n-octanol/water</b>	log Pow: 2.88 The value mentioned relates to the active ingredient chlorothalonil.
<b>Viscosity</b>	140 - 210 mPa.s at 20 °C Velocity gradient 100 /s
<b>Other information</b>	Further safety related physical-chemical data are not known.

#### SECTION 10. STABILITY AND REACTIVITY

<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>Incompatibility</b>	no data available
<b>Hazardous Decomposition Products</b>	No decomposition products expected under normal conditions of use.
<b>Hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed



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instructions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the technical-grade active ingredients, propamocarb hydrochloride and chlorothalanyl.

<b>Acute oral toxicity</b>	rat: LD50: > 2,000 mg/kg
<b>Acute dermal toxicity</b>	rat: LD50: > 4,000 mg/kg
<b>Acute inhalation toxicity</b>	<p>male rat: LC50: 1.8 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.</p> <p>female rat: LC50: 3.0 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.</p> <p>male/female combined rat: LC50: 2.3 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.</p> <p>male rat: LC50: 7.2 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.</p> <p>female rat: LC50: 12.0 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.</p> <p>male/female combined rat: LC50: 9.2 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.</p>
<b>Skin irritation</b>	rabbit: No skin irritation
<b>Eye irritation</b>	rabbit: Severe eye irritation.
<b>Sensitisation</b>	guinea pig: Sensitising OECD Test Guideline 406, Buehler test
<b>Chronic toxicity</b>	<p>Chlorothalanyl did not cause specific target organ toxicity in experimental animal studies.</p> <p>Propamocarb hydrochloride did not cause specific target organ toxicity in</p>



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experimental animal studies.

**Assessment Carcinogenicity**

Chlorothalonil caused at high dose levels an increased incidence of tumours in the following organ(s):  
Kidney, forestomach. This information is not available.

Propamocarb hydrochloride was not carcinogenic in lifetime feeding studies in rats and mice.

**ACGIH**

None.

**NTP**

None.

**IARC**

None.

**OSHA**

None.

**Reproductive toxicity**

Chlorothalonil did not cause reproductive toxicity in a two-generation study in rats.

Propamocarb hydrochloride did not cause reproductive toxicity in a two-generation study in rats.

**Developmental Toxicity**

Chlorothalonil did not cause developmental toxicity in rats and rabbits.

Propamocarb hydrochloride caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Propamocarb hydrochloride are related to maternal toxicity.

**Mutagenicity**

Chlorothalonil was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Propamocarb hydrochloride was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**SECTION 12. ECOLOGICAL INFORMATION**

**Toxicity to fish** Rainbow trout (*Oncorhynchus mykiss*)  
semi-static test  
LC50: 0.177 mg/l  
Exposure time: 96 h

**Toxicity to aquatic plants** Algae  
IC50: 0.56 mg/l  
Exposure time: 72 h

**Acute Toxicity to Aquatic Invertebrates** Daphnia  
static test  
EC50: 0.46 mg/l



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	Exposure time: 48 h
<b>Stability in soil</b>	Not applicable for this mixture.
<b>Bioaccumulation</b>	Not applicable for this mixture.
<b>Environmental precautions</b>	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.
<b>Ecological Information</b>	No other effects to be mentioned.

**SECTION 13. DISPOSAL CONSIDERATIONS**

<b>General Disposal Guidance</b>	Dispose in accordance with all local, state/provincial and federal regulations. Do not contaminate water, food, or feed by disposal. Follow container label instructions for disposal of wastes generated during use in compliance with the product label.
<b>Container Disposal</b>	Do not re-use empty containers. Triple rinse containers. Add washings to sprayer at time of filling. Follow advice on product label and/or leaflet.

**SECTION 14. TRANSPORT INFORMATION**

<b>TDG</b>	Not dangerous goods / not hazardous material
<b>49CFR</b>	Not dangerous goods / not hazardous material
<b>IMDG</b>	
UN number	<b>3082</b>
Class	9
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CHLOROTHALONIL SOLUTION)
<b>IATA</b>	
UN number	<b>3082</b>
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CHLOROTHALONIL SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this





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product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

**SECTION 15. REGULATORY INFORMATION**

**PCP Registration No.** 24544

**US Federal Regulations**

**TSCA list**

Chlorothalonil 1897-45-6  
1,2-Propanediol 57-55-6

**US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)**  
None.

**SARA Title III - Section 302 - Notification and Information**  
None.

**SARA Title III - Section 313 - Toxic Chemical Release Reporting**  
Chlorothalonil 1897-45-6 10,000lbs

**US States Regulatory Reporting**

**CA Prop65**

This product contains a chemical known to the State of California to cause cancer.

Chlorothalonil 1897-45-6

This product does not contain any substances known to the State of California to cause reproductive harm.

**US State Right-To-Know Ingredients**

Chlorothalonil 1897-45-6 CA, NJ  
1,2-Propanediol 57-55-6 MN, RI

**Canadian Regulations**

**Canadian Domestic Substance List**

Chlorothalonil 1897-45-6  
1,2-Propanediol 57-55-6

**Environmental**

**CERCLA**

None.

**Clean Water Section 307 Priority Pollutants**

None.

**Safe Drinking Water Act Maximum Contaminant Levels**

None.

**International Regulations**

**European Inventory of Existing Commercial Substances (EINECS)**

Propamocarb hydrochloride 25606-41-1  
Chlorothalonil 1897-45-6  
1,2-Propanediol 57-55-6



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**SECTION 16. OTHER INFORMATION**

NFPA 704 (National Fire Protection Association):

Health - 2      Flammability - 1      Instability - 0      Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 2      Flammability - 1      Physical Hazard - 0      PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Reviewed and updated for general editorial purposes.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 06/06/2013

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