



Material Safety Data Sheet

LUNA® EXPERIENCE

MSDS Number: 102000021448

MSDS Version 1.3

Revision Date: 02/05/2012

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SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name	LUNA® EXPERIENCE
MSDS Number	102000021448
Product code (UVP)	79465815
EPA Registration No.	264-1091
Product Use	Fungicide

Bayer CropScience
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-866-99BAYER (1-866-992-2937)

SECTION 2. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes and clothing. Avoid breathing spray mist. Remove and wash contaminated clothing before re-use.

Physical State	suspension
Odor	characteristic
Appearance	white to beige
Exposure routes	Ingestion, Inhalation, Skin contact
Immediate Effects	
Eye	May cause eye irritation. Do not get in eyes.
skin	Harmful if absorbed through skin. Avoid contact with skin and clothing.
Ingestion	Harmful if swallowed. Do not take internally.
Inhalation	May be harmful if inhaled. Avoid breathing spray mist.
Potential Environmental Effect	Toxic to fish and aquatic invertebrates. Toxic to mammals. This product may impact surface water quality due to runoff.

**Material Safety Data Sheet****LUNA® EXPERIENCE**MSDS Number: 102000021448
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<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Fluopyram	658066-35-4	17.60
Tebuconazole	107534-96-3	17.60
Polyethylene-polypropylene copolymer	9003-11-6	2.20
1,2-Propanediol	57-55-6	2.20

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
skin	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.
Ingestion	Rinse out mouth and give water in small sips to drink. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Inhalation	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.
Notes to physician Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	> 65 °C / > 149 °F
Autoignition temperature	430 °C / 806 °F
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available



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Explosiveness	Not explosive 92/69/EEC, A.14 / OECD 113
Fire and Explosion Hazards	In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid) Carbon monoxide (CO) Nitrogen oxides (NOx)
Suitable extinguishing media	Water spray, Carbon dioxide (CO ₂), Foam, Sand
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. In the event of fire and/or explosion do not breathe fumes.

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.

SECTION 7. HANDLING AND STORAGE

Handling procedures	Use only in area provided with appropriate exhaust ventilation. Keep away from heat and sources of ignition.
Storing Procedures	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. Store in original container and out of the reach of children, preferably in a locked storage area. 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



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soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	Train employees in safe use of the product. 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	Safety glasses with side-shields
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

Tebuconazole	107534-96-3	OES BCS*	TWA	0.2 mg/m3
1,2-Propanediol	57-55-6	WEEL	TWA	10 mg/m3
		TX ESL	ST ESL	20 ug/m3
		TX ESL	ST ESL	500 ppm
		TX ESL	AN ESL	2 ug/m3
		TX ESL	AN ESL	50 ppm

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to beige
Physical State	suspension
Odor	characteristic
pH	5.0 - 9.0 (100 %) at 23 °C
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	ca. 1.13 g/cm ³ at 20 °C



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Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	no data available
Solubility in other solvents	no data available
Minimum Ignition Energy	no data available
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	250 - 400 mPa.s at 20 °C Velocity gradient 20 /s

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	freezing
Incompatibility	no data available
Hazardous Decomposition Products	no data available
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.

SECTION 11. TOXICOLOGICAL INFORMATION

Only an acute eye irritation study has been performed on this product as formulated. Acute toxicity studies have been bridged from a similar formulation containing a similar percentage of the active ingredients. The non-acute information pertains to the technical-grade active ingredients.

Acute oral toxicity	rat: LD50: > 2,000 mg/kg Test conducted with a similar formulation.
Acute dermal toxicity	rat: LD50: > 2,000 mg/kg Test conducted with a similar formulation.



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Acute inhalation toxicity	rat: LC50: > 1.9 mg/l Exposure time: 4 h Test conducted with a similar formulation. Determined in the form of liquid aerosol. Highest attainable concentration. No deaths
Skin irritation	rabbit: No skin irritation Test conducted with a similar formulation.
Eye irritation	rabbit: Mild eye irritation.
Sensitisation	mouse: Non-sensitizing. Test conducted with a similar formulation. OECD Test Guideline 429, local lymph node assay (LLNA)
Chronic toxicity	Fluopyram caused specific target organ toxicity in the liver in experimental animal studies. Tebuconazole did not cause specific target organ toxicity in experimental animal studies.

Assessment Carcinogenicity

Fluopyram caused an increased incidence of tumours in the liver of rats at high dose levels.

Fluopyram caused an increased incidence of tumours in the thyroid of mice at high dose levels.

The tumours seen with Fluopyram were caused through a non-genotoxic mechanism, which is not relevant at low doses.

Tebuconazole caused an increased incidence of tumours in the liver of mice at high dose levels. The mechanism of tumour formation in the liver of the mice is not considered to be relevant to man.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Reproductive toxicity

Fluopyram 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 Fluopyram is related to general toxicity.

Tebuconazole 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 Tebuconazole is related to general toxicity.



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Developmental Toxicity Fluopyram caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Fluopyram are related to maternal toxicity.

Tebuconazole caused developmental toxicity only at dose levels toxic to the dams. Tebuconazole caused an increased incidence of post implantation losses, an increased incidence of non-specific malformations.

Mutagenicity Fluopyram was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Tebuconazole 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*)
static test
LC50: 21.7 mg/l
Exposure time: 96 h
Test conducted with a similar formulation.

Toxicity to aquatic plants *Pseudokirchneriella subcapitata*
Growth rate
EC50: 17.7 mg/l
Exposure time: 72 h
Test conducted with a similar formulation.

Acute Toxicity to Aquatic Invertebrates Water flea (*Daphnia magna*)
EC50: 56.9 mg/l
Exposure time: 48 h
Test conducted with a similar formulation.

Environmental precautions Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Dispose in accordance with all local, state/provincial and federal regulations. Do not contaminate water, food, or feed by disposal. Follow advice on product label and/or leaflet.

Container Disposal Do not re-use empty containers. Triple rinse containers. Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities. Follow advice on product label and/or leaflet.



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RCRA Information Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14. TRANSPORT INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 264-1091

US Federal Regulations

TSCA list

Polyethylene-polypropylene copolymer	9003-11-6
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

None.

US States Regulatory Reporting

CA Prop65

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

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

US State Right-To-Know Ingredients

1,2-Propanediol	57-55-6	MN, RI
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Canadian Regulations

Canadian Domestic Substance List

Polyethylene-polypropylene copolymer	9003-11-6
1,2-Propanediol	57-55-6

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.



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SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

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

HMS (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.

Revision Date: 02/05/2012

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