



# MATERIAL SAFETY DATA SHEET

## ROYAL MH® 60 SG

**Version:** 1.2  
**Date of Issue:** 10/09/2009  
**Date printed:** 12/10/2009

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### 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product name :** ROYAL MH® 60 SG

**Chemical name:** Maleic Hydrazide, Potassium Salt

**Use of substance/preparation:** Plant Growth Regulator

**Supplier:** Chemtura Canada Co./Cie  
25 ERB STREET  
Elmira, Ontario N3B 3A3 Canada

**Manufacturer:** Chemtura Corporation  
199 Benson Road  
Middlebury, CT 06749 USA

**Emergency telephone number:** 866-744-3060 (Canada 24 hours)  
CANUTEC (24 hours) 613-996-6666 (call collect)

**Environmental, Health and Safety Department:** 866-430-2775

**Customer Care:** +44 161 875 3800

**Prepared by** Product Safety Department      Date of Issue: 10/09/2009  
(US) +1 866-430-2775  
(EU) +44 (0) 1753.603.000  
Email: MSDSRequest@chemtura.com

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### 2. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

#### CAUTION!

MAY BE HARMFUL IF ABSORBED THROUGH SKIN.  
MAY CAUSE MODERATE IRRITATION TO EYES.  
MAY BE IRRITATING TO SKIN.

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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INGREDIENT	% BY WEIGHT
1,2-Dihydro-3,6-pyridazinedione, potassium salt CAS# 28382-15-2	80
Non-Hazardous Inert Ingredients CAS# -	20

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Ingredients not precisely identified are non-hazardous and/or proprietary.

### WHMIS CLASSIFICATION

This product is registered under the Pest Control Products Act and is therefore exempt from WHMIS supplier labeling and MSDS requirements. Please read entire MSDS and product label for safety precautions.

### CPR Compliance

This product has been classified with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.

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## 4. FIRST AID MEASURES

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### Swallowing

If patient is fully conscious, give two glasses of water. Do not induce vomiting unless told to do so by the poison control center or doctor. Obtain medical attention immediately. Do not give milk, oily products, fat or alcohol. Do not give anything by mouth to an unconscious person.

### Inhalation

Remove to fresh air. Give artificial respiration if not breathing. Obtain medical attention.

### Skin contact

Wash skin with soap and water. Remove contaminated clothing. Wash clothing before re-use. Obtain medical attention if irritation persists.

### Eye contact

Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention.

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## 5. FIRE-FIGHTING MEASURES

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**Flash point:** 93 °C

### Hazardous combustion products

Irritating fumes.  
Oxides of carbon.  
Oxides of nitrogen.

### Special fire fighting procedures

Do not discharge extinguishing waters into streams, rivers and lakes.

### Special protective equipment for firefighters

Body covering protective clothing, full "turn-out" gear.  
Self-contained breathing apparatus.

### Extinguishing media

**Suitable:**

- CO2
- dry powder
- foam
- water fog

**Unsuitable:** - water spray

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## 6. ACCIDENTAL RELEASE MEASURES

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### Personal precautions

Wear suitable protective equipment.

### Environmental precautions

Prevent from entering sewer system, surface water or soil., May be harmful to aquatic life.

### Methods for cleaning up

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Sweep up and collect in a suitable container for disposal.

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**7. HANDLING AND STORAGE**

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**HANDLING**

**Handling precautions**

Avoid dust formation., Use only with adequate ventilation.

**Other precautions**

NOTE TO END-USERS: The employee protection recommendations on this MSDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.

**STORAGE**

**Storage requirements**

Store in a cool, dry place.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**EXPOSURE LIMIT VALUES**

Consult local authorities for acceptable provincial values.

**PERSONAL PROTECTION**

**Respiratory protection**

In case of occurrence of dust respiratory protective equipment required.

**Hand protection / protective gloves**

Chemical resistant protective gloves

**Eye protection**

Safety glasses with side shields.

**Skin protection**

Wear protective clothing, such as long sleeves to minimize skin contact.

**ENGINEERING CONTROLS**

**Ventilation**

Local exhaust suggested to prevent dust buildup.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**APPEARANCE**

Physical state	Granular solid
Color	Light brown
Odor	Slight

**OTHER PROPERTIES**

Boiling point	Not available
Melting point	Not available
Specific gravity (H2O=1)	1.7
Bulk density	400.5 - 448.5 kg/m3
Vapor pressure	
Solubility in water	Miscible



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**Solubility in organic solvents** Insoluble

**Flash point** 93 °C  
Method: Pensky Martens closed cup

**Autoignition temperature** 374 °C ( 705 °F)

**Upper explosion limits** Not available

**Lower explosion limits** Not available

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### 10. STABILITY AND REACTIVITY

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**Stability:** This product is stable under normal storage and handling conditions.

**Incompatible materials:**

Oxidizing agents.  
Strong acids.  
Strong bases.

**Hazardous combustion products:**

Irritating fumes.  
Oxides of carbon.  
Oxides of nitrogen.

**Hazardous polymerization:** Will not occur.

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### 11. TOXICOLOGICAL INFORMATION

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SWALLOWING

Test results

Acute toxicity: LD50 Rat  
Result: 7,500 mg/kg

SKIN ABSORPTION

Test results

Acute toxicity: LD50 - Rat  
Result: > 2,000 mg/kg

INHALATION

Test results

Acute toxicity: LC50 - Rat  
Result: > 5 mg/l  
Exposure time: 4 h

SKIN CONTACT

Test results

Skin irritation: Species: Rabbit  
Result: Slight

EYE CONTACT

Test results

Eye irritation: Species: Rabbit  
Result: Moderate

SENSITIZATION

Test results:

Species: - Guinea pigs  
Remark: Non sensitizing.

MUTAGENICITY

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Assessment: Negative

CARCINOGENICITY

Assessment: Negative

TOXICITY TO REPRODUCTION/FERTILITY

Assessment: Negative

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### 12. ECOLOGICAL INFORMATION

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<u>Component ecotoxicology</u> 1,2-Dihydro-3,6-pyridazinedione, potassium salt <u>Acute toxicity fish:</u>	LC50 - Rainbow trout (Oncorhynchus mykiss) Result: > 1,000 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> 1,2-Dihydro-3,6-pyridazinedione, potassium salt <u>Acute toxicity fish:</u>	LC50 - Sheepshead minnow (Cyprinodon variegatus) Result: > 104 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> 1,2-Dihydro-3,6-pyridazinedione, potassium salt <u>Aquatic toxicity to plants:</u>	IC50 - Selenastrum capricornutum Result: 9.84 mg/l Exposure time: 5 d
<u>Component ecotoxicology</u> 1,2-Dihydro-3,6-pyridazinedione, potassium salt <u>Acute toxicity to aquatic invertebrates:</u>	EC50 - Water flea (Daphnia magna) Result: > 1,000 mg/l Exposure time: 48 h
<u>Component ecotoxicology</u> 1,2-Dihydro-3,6-pyridazinedione, potassium salt <u>Acute toxicity to aquatic invertebrates:</u>	EC50 - Oyster (Crassostrea virginica) Result: > 111 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> 1,2-Dihydro-3,6-pyridazinedione, potassium salt <u>Acute toxicity to aquatic invertebrates:</u>	LC50 - Mysid shrimp (Mysis litoralis) Result: > 103 mg/l Exposure time: 96 h

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### 13. DISPOSAL CONSIDERATIONS

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**General:** Dispose of waste material in compliance with all federal, provincial and local regulations., Do not discharge to sewers and natural waters.

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### 14. TRANSPORT INFORMATION

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**TDG - Canada**

This product is not regulated by TDG.

**IMDG Classification**

This product is not regulated by IMDG.

**ICAO/IATA Classification**

This product is not regulated by ICAO.

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### 15. REGULATORY INFORMATION

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#### WHMIS CLASSIFICATION

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#### CPR Compliance

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#### CHEMICAL INVENTORY

##### Canada:

PCP # 18143

##### United States:

This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from TSCA Inventory listing requirements.

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### 16. OTHER INFORMATION

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STP	Standard temperature and pressure
W/W	Weight/Weight

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