

# Safety Data Sheet



## Saturn® EC Rice Herbicide

Version 1 / AUS  
102000003321

Revision Date: 15.01.2024  
Print Date: 15.01.2024

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Trade name** Saturn® EC Rice Herbicide  
**Product code (UVP)** 05948215

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Use** Herbicide

#### 1.3 Details of the supplier of the safety data sheet

**Supplier** Bayer Cropscience Pty Ltd  
ABN 87 000 226 022  
Level 4, 109 Burwood Rd  
Hawthorn 3122  
Victoria  
Australia

**Telephone** (03) 9248 6888

**Telefax** (03) 9248 6800

**Responsible Department** 1800 804 479 Technical Information Service

**Website** www.crop.bayer.com.au

#### 1.4 Emergency telephone no.

**Emergency telephone no.** 1800 033 111 IXOM Operations Pty Ltd

### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification in accordance with Australian GHS Regulation

Acute toxicity: Category 4  
H302 Harmful if swallowed.

Skin corrosion/irritation: Category 2  
H315 Causes skin irritation.

Eye Damage/Irritation: Category 2A  
H319 Causes serious eye irritation.

Carcinogenicity: Category 2  
H351 Suspected of causing cancer.

Aspiration hazard: Category 1  
H304 May be fatal if swallowed and enters airways.

Acute aquatic toxicity: Category 1

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- H400 Very toxic to aquatic life.  
Chronic aquatic toxicity: Category 1  
H410 Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling according to specific Australian legislation

Hazard label for supply/use required.

#### Hazardous components which must be listed on the label:

Thiobencarb

**Signal word:** Danger

#### Hazard statements

- H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H351 Suspected of causing cancer.  
H304 May be fatal if swallowed and enters airways.

#### Precautionary statements

- P202 Do not handle until all safety precautions have been read and understood.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/ physician.  
P330 Rinse mouth.  
P331 Do NOT induce vomiting.  
P302 + P352 IF ON SKIN: Wash with plenty of water/ soap.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
+ P338  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

No additional hazards known beside those mentioned.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature

Thiobencarb 800 g/l  
Emulsifiable concentrate (EC)

Chemical name	CAS-No.	Concentration [%]
Thiobencarb	28249-77-6	72.73
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	>= 10.00 - <= 20.00

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Naphthalene	91-20-3	< 2.00
2-Ethylhexan-1-ol	104-76-7	< 2.00
Other ingredients (non-hazardous) to 100%		

### SECTION 4. FIRST AID MEASURES

**If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.**

#### 4.1 Description of first aid measures

<b>General advice</b>	Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. Place and transport victim in stable position (lying sideways).
<b>Inhalation</b>	When inhaled remove to fresh air and seek medical aid. Keep patient warm and at rest. Oxygen or artificial respiration if needed.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Keep patient warm and at rest. Do not induce vomiting or give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

#### 4.2 Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	If large amounts are ingested, the following symptoms may occur: Prostration, Sedation
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#### 4.3 Indication of any immediate medical attention and special treatment needed

<b>Risks</b>	This product, although being a carbamate, is NOT a cholinesterase inhibitor.
<b>Treatment</b>	Treat symptomatically. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 24-48 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

### SECTION 5. FIRE FIGHTING MEASURES

#### 5.1 Extinguishing media

<b>Suitable</b>	Dry chemical, Foam, Carbon dioxide (CO <sub>2</sub> ), Sand
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<b>5.2 Special hazards arising from the substance or mixture</b>	In the event of fire the following may be released: Carbon dioxide (CO <sub>2</sub> ), Carbon monoxide (CO), Nitrogen oxides (NO <sub>x</sub> ), Sulphur oxides
<b>5.3 Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus and protective suit.
<b>Further information</b>	Avoid contact with spilled product or contaminated surfaces. Evacuate personnel to safe areas. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses.
<b>Hazchem Code</b>	•3Z

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

<b>Precautions</b>	Avoid contact with spilled product or contaminated surfaces. Remove all sources of ignition. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment. Keep people away from and upwind of spill/leak.
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<b>6.2 Environmental precautions</b>	Contain contaminated water and fire fighting water. Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.
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#### 6.3 Methods and materials for containment and cleaning up

<b>Methods for cleaning up</b>	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.
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<b>6.4 Reference to other sections</b>	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.
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### SECTION 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

<b>Advice on safe handling</b>	Avoid contact with skin, eyes and clothing. Provide for appropriate exhaust ventilation and dust collection at machinery. Use only in area provided with appropriate exhaust ventilation.
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<b>Advice on protection against fire and explosion</b>	Keep away from heat and sources of ignition.
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<b>Hygiene measures</b>	Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash thoroughly with soap and water after handling. After
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each day's use, wash gloves, face shield or goggles and contaminated clothing. Before removing gloves clean them with soap and water. Wash hands immediately after work, if necessary take a shower.

**7.2 Conditions for safe storage, including any incompatibilities**

**Requirements for storage areas and containers** Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

**Advice on common storage** Keep away from food, drink and animal feedingstuffs.

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

**8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Naphthalene	91-20-3	79 mg/m <sup>3</sup> /15 ppm (STEL)	12 2011	AU NOEL
Naphthalene	91-20-3	52 mg/m <sup>3</sup> /10 ppm (TWA)	12 2011	AU NOEL
Naphthalene	91-20-3	10 ppm (TLV)		OES BCS*

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

**8.2 Exposure controls**

**Respiratory protection** Use respiratory protection for organic vapours.

**Hand protection** Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm, minimum rate of permeability 480 min). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

**Eye protection** Face-shield

**Skin and body protection** Skin contact should be prevented. Wear standard coveralls and Category 3 Type 4 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. Chemical resistant headgear for overhead exposure. Chemical resistant shoes plus socks.

**General protective measures** In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.

**Engineering Controls**

**Advice on safe handling** Avoid contact with skin, eyes and clothing. Provide for appropriate exhaust ventilation and dust collection at machinery. Use only in area provided with appropriate exhaust ventilation.



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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

<b>Form</b>	Liquid, clear
<b>Colour</b>	light yellow to light brown
<b>Odour</b>	aromatic
<b>Odour Threshold</b>	No data available
<b>pH</b>	5.0 - 8.0 (1 %) (23 °C) (deionized water)
<b>Melting point/range</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash point</b>	> 65 °C
<b>Flammability</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Thermal decomposition</b>	No data available
<b>Minimum ignition energy</b>	No data available
<b>Self-accelerating decomposition temperature (SADT)</b>	No data available
<b>Upper explosion limit</b>	7 %(V) The data refer to the solvent.
<b>Lower explosion limit</b>	0.6 %(V) The data refer to the solvent.
<b>Vapour pressure</b>	2.93 mPa (23 °C) The value mentioned relates to the active ingredient.
<b>Evaporation rate</b>	No data available
<b>Relative vapour density</b>	No data available
<b>Relative density</b>	No data available
<b>Density</b>	ca. 1.10 g/cm <sup>3</sup> (20 °C)
<b>Water solubility</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	
<b>Partition coefficient: n-octanol/water</b>	Thiobencarb: log Pow: 4.23 (20 °C) (pH 7)
<b>Viscosity, dynamic</b>	No data available
<b>Viscosity, kinematic</b>	No data available
<b>Oxidizing properties</b>	No data available
<b>Explosivity</b>	No data available
<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.



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### SECTION 10. STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	Stable under normal conditions.
<b>10.2 Chemical stability</b>	Stable under recommended storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions. Stable under normal conditions.
<b>10.4 Conditions to avoid</b>	Elevated temperatures Heat, flames and sparks.
<b>10.5 Incompatible materials</b>	Oxidizing agents, Strong bases, Strong acids
<b>10.6 Hazardous decomposition products</b>	Thermal decomposition can lead to release of: Carbon oxides Nitrogen oxides (NO <sub>x</sub> ) Sulphur oxides

### SECTION 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

<b>Acute oral toxicity</b>	LD50 (Rat) 1,231 mg/kg Test conducted with a similar formulation.
<b>Acute inhalation toxicity</b>	LC50 (Rat) 5.2 mg/l Exposure time: 4 h Test conducted with a similar formulation.
<b>Acute dermal toxicity</b>	LD50 (Rat) > 2,000 mg/kg Test conducted with a similar formulation.
<b>Skin corrosion/irritation</b>	Moderate skin irritation. (Rabbit) Test conducted with a similar formulation.
<b>Serious eye damage/eye irritation</b>	Moderate eye irritation. (Rabbit)
<b>Respiratory or skin sensitisation</b>	Non-sensitizing. (Guinea pig)

#### Assessment mutagenicity

Thiobencarb: Based on available data, the classification criteria are not met.

#### Assessment carcinogenicity

Thiobencarb was not carcinogenic in lifetime feeding studies in rats and mice.

#### Assessment toxicity to reproduction

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

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### Assessment developmental toxicity

Thiobencarb did not cause developmental toxicity in rats and rabbits.

### Assessment STOT Specific target organ toxicity – repeated exposure

Thiobencarb did not cause specific target organ toxicity in experimental animal studies.

### Aspiration hazard

May be fatal if swallowed and enters airways.

### Information on likely routes of exposure

May be harmful if inhaled. High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Irritating to skin.

Causes eye irritation.

Harmful if swallowed. Small amounts of the solvent in this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury.

### Early onset symptoms related to exposure

Refer to Section 4

### Delayed health effects from exposure

Refer to Section 11

### Exposure levels and health effects

Refer to Section 4

### Interactive effects

Not known

### When specific chemical data is not available

Not applicable

### Mixture of chemicals

Refer to Section 2.1

### Further information

No further toxicological information is available.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Toxicity to fish

LC50 (Oncorhynchus mykiss (rainbow trout)) 1.1 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient.

LC50 (Cyprinus carpio (Carp)) 0.98 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient.

#### Toxicity to aquatic invertebrates

LC50 (Daphnia magna (Water flea)) 1.1 mg/l  
Exposure time: 48 h



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	The value mentioned relates to the active ingredient.
<b>Toxicity to aquatic plants</b>	EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.038 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient.
<b>Toxicity to other organisms</b>	LD50 (Colinus virginianus (Bobwhite quail)) > 7,800 mg/kg The value mentioned relates to the active ingredient.  LD50 (Anas platyrhynchos (Mallard duck)) > 10,000 mg/kg The value mentioned relates to the active ingredient.

### 12.2 Persistence and degradability

<b>Biodegradability</b>	Thiobencarb: Not rapidly biodegradable
<b>Koc</b>	Thiobencarb: Koc: 1176 - 2016

### 12.3 Bioaccumulative potential

<b>Bioaccumulation</b>	Thiobencarb: Bioconcentration factor (BCF) 302 Does not bioaccumulate.
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### 12.4 Mobility in soil

<b>Mobility in soil</b>	Thiobencarb: Slightly mobile in soils
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### 12.5 Other adverse effects

<b>Additional ecological information</b>	No other effects to be mentioned.
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## SECTION 13. DISPOSAL CONSIDERATIONS

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Do not burn empty containers or product.

Do not reuse container for any other purpose.

Refillable containers:

If tamper evident seals are broken prior to initial use then the integrity of the contents cannot be assured. Empty container by pumping through dry-break connection system. Do not attempt to breach the valve system or the filling point, or contaminate the container with water or other products. Ensure that the coupler, pump, meter and hoses are disconnected, triple rinsed and drained after each use. When empty, or contents no longer required, return the container to the point of purchase. This container remains the property of Bayer CropScience Pty Ltd.

## SECTION 14. TRANSPORT INFORMATION

### ADG

UN number	3082
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III

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Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (THIOBENCARB)
Hazchem Code	•3Z

AU01: Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;  
a) packagings that do not incorporate a receptacle exceeding 500 kg(L); or  
b) IBCs

### IMDG

UN number	<b>3082</b>
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (THIOBENCARB)

### IATA

UN number	<b>3082</b>
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (THIOBENCARB )

## SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994  
Australian Pesticides and Veterinary Medicines Authority approval number: 41729

### SUSMP classification (Poison Schedule)

Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons)

## SECTION 16. OTHER INFORMATION

**Trademark information** Saturn® is a Registered Trademark of the Kumiai Chemical Industry Co Ltd.

### Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
AU OEL	Australia. OELs. (Adopted National Exposure Standards for Atmospheric

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	Contaminants in the Occupational Environment)
CAS-Nr.	Chemical Abstracts Service number
CEILING	Ceiling Limit Value
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
OES BCS	OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"
PEAK	PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SK-SEN	Skin sensitiser
SKIN_DES	SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
STEL	STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.
TWA	TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.