

Revision Date: 11/03/2023

RHAPSODY®

Version 3.0 / USA 102000027846

Print Date: 11/04/2023

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE **COMPANY/UNDERTAKING**

Product identifier

Trade name **RHAPSODY®** Product code (UVP)

SDS Number 102000027846

EPA Registration No. 264-1155

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

80924771

Use **Fungicide**

Restrictions on use See product label for restrictions.

Information on supplier

Supplier Bayer CropScience LP

800 North Lindbergh Blvd.

St. Louis, MO 63167

USA

Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days)

1-800-334-7577

Product Information Telephone Number

1-866-99BAYER (1-866-992-2937)

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Hazards Not Otherwise Classified (HNOC)

Micro-organisms may have the potential to provoke sensitising reactions.

No physical hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS



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Hazardous Component NameBacillus subtilis strain QST 713

CAS-No. Concentration % by weight

1.34

Bacillus subtilis strain QST 713: >= 1.0E+09 CFU/g

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice When possible, have the product container or label with you when

calling a poison control center or doctor or going for treatment.

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.

Skin contact Take off contaminated clothing and shoes immediately. Wash off

immediately with plenty of water for at least 15 minutes. Call a

physician or poison control center immediately.

Eye contact 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.

Ingestion 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. Do not leave victim

unattended.

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the

patient's condition is recommended.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon

dioxide.

Unsuitable High volume water jet



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Special hazards arising from the substance or

mixture

Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for firefighters

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.

Further information Use appropriate extinguishing media for material that is supplying fuel.

Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from

fire fighting to enter drains or water courses.

Specific hazards from the substance or mixture which can increase the fire

Flash point $> 91 \, ^{\circ}\text{C} / > 195.8 \, ^{\circ}\text{F}$

No flash point - Determination conducted up to the boiling point.

Auto-ignition temperature

475 °C / 887 °F No data available

Lower explosion limit
Upper explosion limit

No data available

Explosivity

Not explosive

92/69/EEC, A.14 / OECD 113

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact

with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning upSoak 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. Clean with disinfectants.

Additional advice Use personal protective equipment. If the product is accidentally

spilled, do not allow to enter soil, waterways or waste water canal.

Reference to other sections 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

Precautions for safe handling

and open container in a manner as to prevent spillage.

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

clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

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. Keep away

from direct sunlight.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Bacillus subtilis strain QST		20,000,000 CFU/m ³		OES BCS*
713				

^{*}OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection Respiratory protection is not required under anticipated

circumstances of exposure.

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.

Hand protection Waterproof gloves

Eye protection Safety glasses with side-shields

Skin and body protection Wear long-sleeved shirt and long pants and shoes plus socks.



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General protective measures Follow manufacturer's instructions for cleaning/maintaining PPE. If

no such instructions for washables, use detergent and warm/tepid

Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form suspension Colour light brown Odour sweet, earthy **Odour Threshold** No data available

5.2 - 5.4 (100 %) (23 °C) pН

Melting point/range No data available 91 °C / 195.8 °F Boiling point/boiling range Flash point > 91 °C / > 195.8 °F

No flash point - Determination conducted up to the boiling point.

Flammability No data available **Auto-ignition temperature** 475 °C / 887 °F Thermal decomposition No data available

Minimum ignition energy Not applicable Self-accelarating

decomposition temperature

(SADT)

No data available

Upper explosion limit No data available Lower explosion limit No data available Vapour pressure No data available **Evaporation rate** No data available Relative vapour density No data available Relative density No data available

Density ca. 1.05 g/cm3 (20 °C)

Water solubility dispersible Partition coefficient: n-Not applicable

octanol/water

Viscosity, dynamic

10 - 100 mPa.s (21 °C)

Viscosity, kinematic No data available



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Surface tension 34 mN/m (25 °C)

Determined in the undiluted form.

Impact sensitivityNot impact sensitive.Oxidizing propertiesNo data available

Not explosive

92/69/EEC, A.14 / OECD 113

Other information Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity Stable under normal conditions.

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous

reactions

Explosivity

No hazardous reactions when stored and handled according to

prescribed instructions.

Conditions to avoid Protect from sunlight. Do not expose to temperatures exceeding 40 °C/

104 °F. freezing

Incompatible materials No incompatible materials known.

Hazardous decomposition

products

No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Inhalation, Eye contact, Skin contact, Ingestion

Immediate Effects

Eye Not expected to produce significant adverse effects when

recommended use instructions are followed.

Skin May cause sensitisation by skin contact.

Ingestion Not expected to produce significant adverse effects when

recommended use instructions are followed.

Inhalation May be harmful if inhaled.

Information on toxicological effects

Acute oral toxicity LD50 (female Rat) > 5,000 mg/kg

Acute inhalation toxicity LC50 (Rat) > 5.19 mg/l

Exposure time: 4 h



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Determined in the form of liquid aerosol.

Acute dermal toxicity LD50 (Rabbit) > 2,000 mg/kg
Skin corrosion/irritation No skin irritation (Rabbit)

Serious eye damage/eye

irritation

No eye irritation (Rabbit)

Respiratory or skin Skin: Non-sensitizing. (Guinea pig) **sensitisation** Test conducted with a similar formulation.

Assessment STOT Specific target organ toxicity – single exposure

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

Assessment STOT Specific target organ toxicity - repeated exposure

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

Assessment mutagenicity

Bacillus subtilis: Test not required for microorganisms.

Assessment carcinogenicity

Bacillus subtilis: Test not required for microorganisms.

ACGIH

None.

NTP

None.

IARC

None.

Assessment toxicity to reproduction

Bacillus subtilis: Test not required for microorganisms.

Assessment developmental toxicity

Bacillus subtilis: Test not required for microorganisms.

Aspiration hazard

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

Further information

No further toxicological information is available.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 162 mg/l 3.24 x 10⁹

CFU/L

Exposure time: 30 d

The value mentioned relates to the active ingredient.



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NOEC (Oncorhynchus mykiss (rainbow trout)) 86 mg/l 1.72 x 10^9

CFU/L

Exposure time: 30 d

The value mentioned relates to the active ingredient.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 108 mg/l 2.16 x 10^9 CFU/L

Exposure time: 48 h

The value mentioned relates to the active ingredient.

NOEC (Daphnia magna (Water flea)) 13 mg/l 2.6 x 10^8 CFU/L

Exposure time: 48 h

The value mentioned relates to the active ingredient.

EC50 (Daphnia magna (Water flea)) 1.6 x 10⁶ CFU/mL

Exposure time: 21 d

The value mentioned relates to the active ingredient.

NOEC (Daphnia magna (Water flea)) 7.9 x 10⁵ CFU/mL

Exposure time: 21 d

The value mentioned relates to the active ingredient.

Toxicity to aquatic plants NOEC (Desmodesmus subspicatus (green algae)) >= 100 mg/l

The value mentioned relates to the active ingredient.

LOEC (Desmodesmus subspicatus (green algae)) > 100 mg/l

The value mentioned relates to the active ingredient.

Biodegradability Bacillus subtilis:

Evaluation of biodegradability is not relevant for micro-organisms.

Bioaccumulation Bacillus subtilis:

Evaluation of bioaccumulation is not relevant for micro-organisms.

Mobility in soil Bacillus subtilis: Evaluation of mobility in soil is not relevant for micro-

organisms.

Results of PBT and vPvB assessment

PBT and vPvB assessment Bacillus subtilis: Evaluation of PBT/vPvB properties is not relevant for

micro-organisms.

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. Do not apply when weather conditions favor runoff or drift.

Apply this product as specified on the label.



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SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Dispose in accordance with all local, state/provincial and federal

regulations.

Contaminated packaging Consult state and local regulations regarding the proper disposal of

container.

Follow advice on product label and/or leaflet.

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.

Freight Classification: INSECTICIDES OR FUNGICIDES O/T POISON

INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN

POISON

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 264-1155

US Federal Regulations

TSCA list

Water 7732-18-5

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No export notification needs to be made.

SARA Title III - Section 302 - Notification and Information

Not applicable.

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.

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Attapulgite clay 12174-11-7 Carcinogenic. Crystalline quartz (respirable) 14808-60-7 Carcinogenic.

US State Right-To-Know Ingredients



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Attapulgite clay 12174-11-7 CA, MN, RI

Environmental CERCLA None.

Clean Water Section 307(a)(1)

Safe Drinking Water Act Maximum Contaminant Levels

None.

EPA/FIFRA Information:

This chemical is a pesticide product regulated 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 for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: Harmful if inhaled.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR Code of Federal Regulations, Title 49 US. ACGIH Threshold Limit Values ACGIH

ATE Acute toxicity estimate

CAS-Nr. Chemical Abstracts Service number

Comprehensive Environmental Response, Compensation, and Liability Act **CERCLA**

EINECS European inventory of existing commercial substances

ELINCS European list of notified chemical substances International Agency for Research on Cancer **IARC** IATA International Air Transport Association

International Maritime Dangerous Goods **IMDG**

N.O.S. Not otherwise specified

NTP US. National Toxicology Program (NTP) Report on Carcinogens **OECD** Organization for Economic Co-operation and Development

Transportation of Dangerous Goods TDG

Time weighted average **TWA**

United Nations UN

WHO World health organisation



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NFPA 704 (National Fire Protection Association):

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

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

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

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

* = chronic health hazard

Reason for Revision: The following sections have been revised: Section 11: Toxicological Information. Section 15: Regulatory information. Section 16: Other Information. Reviewed and updated for general editorial purposes.

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

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