

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

SECTION 1. IDENTIFICATION

Product name : Rayora Fungicide
Product code : UVP: DU00000118 Specification: 102D00000133 EPA Registration No: 101563-369

Manufacturer or supplier's details

Company name of supplier : Environmental Science U.S. LLC.
Address : 5000 Centregreen Way, Suite 400
Cary NC 27513
Telephone : 1-800-331-2867
Emergency telephone : +1 703-741-5970
E-mail address : uscontact@envu.com

Recommended use of the chemical and restrictions on use

Recommended use : Fungicide
Restrictions on use : For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards for the product as supplied

Serious eye damage : Category 1
Skin sensitization : Sub-category 1B
Reproductive toxicity : Category 2

Other hazards

None known.

GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H361d Suspected of damaging the unborn child.

Supplemental Hazard Statements : Corrosive to the respiratory tract.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version 1.2 Revision Date: 04/09/2026 SDS Number: 11570925-00003 Date of last issue: 01/23/2026
Date of first issue: 08/20/2025

P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing mist or vapors.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER.
P308 + P313 IF exposed or concerned: Get medical attention.
P321 Specific treatment (see supplemental first aid instructions on this label).
P333 + P313 If skin irritation or rash occurs: Get medical attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)	Trade secret
(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol	76674-21-0*	11.8	-
Alcohols, C13-15-branched and linear, ethoxylated	157627-86-6*	$\geq 5 - < 10$	-
Propylene glycol	57-55-6*	$\geq 5 - < 10$	-
Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	68425-94-5*	$\geq 1 - < 3$	-

* Indicates that the identifier is a CAS No.

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

		When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention immediately.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	If large amounts are ingested, the following symptoms may occur: mental depression muscle twitching ataxia May cause an allergic skin reaction. Causes serious eye damage. Suspected of damaging the unborn child. Corrosive to the respiratory tract.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	:	There is no specific antidote available. Treat symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.
Hazardous combustion products	:	Carbon oxides Nitrogen oxides (NOx) Fluorine compounds Metal oxides
Specific extinguishing method	:	Use extinguishing measures that are appropriate to local cir-

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

ods cumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.
for fire-fighters Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- : Use personal protective equipment.
tive equipment and emer-
gency procedures Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g., by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for : Soak up with inert absorbent material.
containment and cleaning up For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not get on skin or clothing.
Avoid breathing mist or vapors.
Do not swallow.
Do not get in eyes.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Take care to prevent spills, waste and minimize release to the environment.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version 1.2 Revision Date: 04/09/2026 SDS Number: 11570925-00003 Date of last issue: 01/23/2026
Date of first issue: 08/20/2025

Conditions for safe storage : Keep in properly labeled containers.
Store locked up.
Keep tightly closed.
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents
Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Propylene glycol	57-55-6	TWA	10 mg/m ³	US WEEL

Engineering measures : Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Face-shield

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: suspension
Color	: off-white, brown
Odor	: solvent
Odor Threshold	: No data available
pH	: 6.5 (77 °F / 25 °C) Concentration: 10 g/l
Melting point/freezing point	: < 32 °F / < 0 °C
Initial boiling point and boiling range	: 210 °F / 99 °C
Flash point	: > 210 °F / > 99 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Flammability (liquids)	: Ignitable (see flash point)
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: No data available
Density	: 1.060 g/l
Solubility(ies)	
Water solubility	: dispersible
Solubility in other solvents	: 114 - 133 g/l (70 °F / 21 °C)

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

	Solvent: Acetone
	< 10 g/l (70 °F / 21 °C)
	Solvent: Heptane
Partition coefficient: n-octanol/water	: Not applicable
Autoignition temperature	: ca. 842 °F / 450 °C
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: 83 - 560 mPa.s (68 °F / 20 °C)
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Particle characteristics	
Particle size	: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Vapors may form explosive mixture with air. Can react with strong oxidizing agents.
Conditions to avoid	: None known.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	: LD50 (Rat): > 3,000 mg/kg
---------------------	-----------------------------

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Acute oral toxicity : LD50 (Mouse, female): 179 mg/kg
Method: OPPTS 870.1100
Remarks: The test was conducted according to guideline

Acute inhalation toxicity : LC50 (Rat): > 5.2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OPPTS 870.1300
Remarks: The test was conducted according to guideline

Acute dermal toxicity : LD50 (Rat): > 1,000 mg/kg
Method: OPPTS 870.1200
Remarks: The test was conducted according to guideline

Alcohols, C13-15-branched and linear, ethoxylated:

Acute oral toxicity : LD50 (Rat): 500 - 2,000 mg/kg

Propylene glycol:

Acute oral toxicity : LD50 (Rat): 22,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 44.9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Acute oral toxicity : LD50 (Rat): > 4,500 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Species : Rabbit
Result : No skin irritation

Alcohols, C13-15-branched and linear, ethoxylated:

Result : No skin irritation

Propylene glycol:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Species	: Rabbit
Result	: No eye irritation

Alcohols, C13-15-branched and linear, ethoxylated:

Result	: Irreversible effects on the eye
--------	-----------------------------------

Propylene glycol:

Species	: Rabbit
Result	: No eye irritation
Method	: OECD Test Guideline 405

Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Result	: Irritation to eyes, reversing within 21 days
--------	--

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Product:

Assessment	: Probability or evidence of low to moderate skin sensitization rate in humans
------------	--

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Test Type	: Local lymph node assay (LLNA)
Routes of exposure	: Skin contact
Species	: Mouse
Result	: negative

Propylene glycol:

Test Type	: Maximization Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Result	: negative

Germ cell mutagenicity

Not classified based on available information.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
		Test Type: In vitro mammalian cell gene mutation test Result: positive
		Test Type: Chromosome aberration test in vitro Result: negative
Genotoxicity in vivo	:	Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo Species: Rat Application Route: Ingestion Result: negative
		Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Ingestion Result: negative

Propylene glycol:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative
		Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative
Genotoxicity in vivo	:	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Result: negative

Carcinogenicity

Not classified based on available information.

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Species	:	Rat
Application Route	:	Ingestion
Exposure time	:	2y
Result	:	negative
Species	:	Mouse
Application Route	:	Ingestion
Exposure time	:	2y
Result	:	negative

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

Propylene glycol:

Species	:	Rat
Application Route	:	Ingestion
Exposure time	:	2 Years
Result	:	negative

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Suspected of damaging the unborn child.

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Method: OPPTS 870.3800 Result: negative Remarks: The test was conducted according to guideline
----------------------	---	---

Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Ingestion Method: OPPTS 870.3700 Result: positive Remarks: The test was conducted according to guideline
------------------------------	---	---

Reproductive toxicity - Assessment	:	Some evidence of adverse effects on development, based on animal experiments.
------------------------------------	---	---

Propylene glycol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Mouse Application Route: Ingestion Result: negative
----------------------	---	---

Effects on fetal development	:	Test Type: Embryo-fetal development Species: Mouse Application Route: Ingestion Result: negative
------------------------------	---	---

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

STOT-single exposure

Corrosive to the respiratory tract.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Species	: Rat, female
NOAEL	: 22 mg/kg
LOAEL	: 145 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days

Species	: Rat
NOAEL	: 1,000 mg/kg
Application Route	: Skin contact
Exposure time	: 28 Days

Propylene glycol:

Species	: Rat, male
NOAEL	: $\geq 1,700$ mg/kg
Application Route	: Ingestion
Exposure time	: 2 y

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Toxicity to fish	: LC50 (Lepomis macrochirus (Bluegill sunfish)): 33 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Crassostrea virginica (eastern oyster)): 25 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	: EbC50 (Scenedesmus subspicatus): 1.9 mg/l Exposure time: 72 h
Toxicity to fish (Chronic toxicity)	: NOEC (Pimephales promelas (fathead minnow)): 4.8 mg/l Exposure time: 33 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 0.31 mg/l Exposure time: 21 d

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

Alcohols, C13-15-branched and linear, ethoxylated:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 1 - 10 mg/l Exposure time: 48 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): > 1 - < 10 mg/l Exposure time: 48 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: > 0.1 - < 1 mg/l
Toxicity to microorganisms	:	EC10: > 1,000 mg/l

Propylene glycol:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Ceriodaphnia dubia (water flea)): 18,340 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Skeletonema costatum (marine diatom)): 19,300 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Ceriodaphnia dubia (water flea)): 13,020 mg/l Exposure time: 7 d
Toxicity to microorganisms	:	NOEC (Pseudomonas putida): > 20,000 mg/l Exposure time: 18 h

Alkylnaphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 10 - 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
	:	EC10 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): > 1 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials

Persistence and degradability

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Biodegradability : Result: Not readily biodegradable.

Biodegradation Simulation Tests : Environmental Compartment: Soil
Value type: DT50
Value: 672 - 3,492 d
Temperature: 20 °C

Alcohols, C13-15-branched and linear, ethoxylated:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Propylene glycol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 98.3 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt:

Biodegradability : Result: Not readily biodegradable.
Remarks: Based on data from similar materials

Bioaccumulative potential

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 12.2

Partition coefficient: n-octanol/water : log Pow: 2.3

Propylene glycol:

Partition coefficient: n-octanol/water : log Pow: -1.07
Method: Regulation (EC) No. 440/2008, Annex, A.8

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

Mobility in soil

Components:

(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol:

Distribution among environmental compartments : log Koc: 2.14

Other adverse effects

No data available

Endocrine disrupting properties

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Do not dispose of waste into sewer.
Contaminated packaging	:	Follow advice on product label and/or leaflet. Empty containers retain residue and can be dangerous. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitization
Reproductive toxicity
Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know

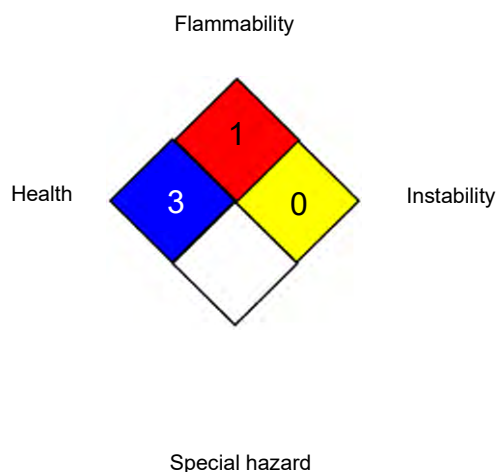
Water	7732-18-5
(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol	76674-21-0
Alcohols, C13-15-branched and linear, ethoxylated	157627-86-6
Propylene glycol	57-55-6

Active substance : 125 g/l
(RS)-2,4'-Difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV / CED:

HEALTH	*	3
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
US WEEL / TWA : 8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 04/09/2026

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Rayora Fungicide

Version	Revision Date:	SDS Number:	Date of last issue: 01/23/2026
1.2	04/09/2026	11570925-00003	Date of first issue: 08/20/2025

US / Z8