

Version 2.0 / USA 102000037606

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

Product identifier

Trade name	ROUNDUP QUIKPRO™ HERBICIDE
Product code (UVP)	86809095
SDS Number	102000037606
EPA Registration No.	524-535

Relevant identified uses of the substance or mixture and uses advised against		
Use	Herbicide	
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 Specific target organ toxicity - repeated exposure: Category 2

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Warning

Hazard statements May cause damage to organs (Eyes, Kidney) through prolonged or repeated



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exposure.

Precautionary statements

Do not breathe dust. Get medical advice/ attention if you feel unwell. Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified. No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Ammonium salt of glyphosate	114370-14-8	73.3
Diquat dibromide	85-00-7	2.9
Polyether modified trisiloxane	134180-76-0	14.1

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	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.	
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		
Risks	This product is not a cholinesterase inhibitor.	



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Treatment

Treatment with atropine and oximes is not indicated. 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	
Special hazards arising from the substance or mixture	In the event of fire the following may be released:, Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Oxides of phosphorus	
Advice for firefighters		
Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. Equipment should be thoroughly decontaminated after use.	
Further information	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	Not applicable
Auto-ignition temperature	No data available
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosivity	Not explosive

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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 co	ntainment and cleaning up	
Methods for cleaning up	Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.	
Additional advice	Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.	
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.	

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Avoid dust formation. Use only in area provided with appropriate exhaust ventilation. Handle 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, i	ncluding 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. Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode. Partial crystallization may occur on prolonged storage below the minimum storage temperature. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.
Advice on common storage	Keep away from food, drink and animal feedingstuffs.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Diquat dibromide	85-00-7	0.5 mg/m3 (REL)	2005	NIOSH
Diquat dibromide	85-00-7	0.1 mg/m3 (TWA)	01 2022	ACGIH
(Respirable fraction.)				
Diquat dibromide	85-00-7	0.5 mg/m3 (TWA PEL)	09 2006	US CA OEL
(Total dust.)				
Diquat dibromide	85-00-7	0.5 mg/m3 (TWA)	06 2008	TN OEL
Diquat dibromide	85-00-7	0.5 mg/m3 (TWA)	01 2022	ACGIH
(Inhalable fraction.)		· · ·		

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	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	Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)
Eye protection	Tightly fitting safety goggles
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form	small rod
Colour	light yellow to brown
Odour	slight
Odour Threshold	No data available

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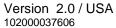
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рН	3.7 (10 g/l)
Melting point/range	No data available
Boiling Point	No data available
Flash point	Not applicable
Flammability	Not applicable
Auto-ignition temperature	No data available
Thermal decomposition	No data available
Minimum ignition energy	Not applicable
Self-accelarating decomposition temperature (SADT)	No data available
Upper explosion limit	Not applicable
Lower explosion limit	Not applicable
Vapour pressure	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Relative density	No data available
Density	No data available
Bulk density	0.68 g/ml (bulk density tapped)
Water solubility	soluble
Partition coefficient: n- octanol/water	Glyphosate: log Pow: -2.9
	Diquat dibromide: log Pow: -4.6
Viscosity, dynamic	No data available
Viscosity, kinematic	No data available
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive
Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY





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Reactivity Chemical stability	Stable under normal conditions. Stable under recommended storage conditions.
Possibility of hazardous reactions	Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	Galvanised steel, Unlined mild steel
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Skin contact, Eye contact, Inhalation, Ingestion	
Immediate Effects Eye	May cause temporary eye irritation.	
Skin	Not expected to produce significant adverse effects when recommended use instructions are followed.	
Ingestion	Harmful if swallowed.	
Inhalation	Harmful if inhaled.	
Information on toxicological effects		
Acute oral toxicity	LD50 (Rat) 4,443 mg/kg	
Acute inhalation toxicity	LC50 (Rat) > 0.99 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration.	
Acute dermal toxicity	LD50 (Rat) > 5,000 mg/kg	
Skin corrosion/irritation	Slight irritant effect - does not require labelling. (Rabbit)	
Serious eye damage/eye irritation	Moderate eye irritation. (Rabbit)	
Respiratory or skin sensitisation	Skin: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test	

Assessment STOT Specific target organ toxicity – single exposure

Glyphosate: Based on available data, the classification criteria are not met. Diquat dibromide: May cause respiratory irritation.

Assessment STOT Specific target organ toxicity - repeated exposure

Glyphosate did not cause specific target organ toxicity in experimental animal studies. Diquat dibromide caused specific target organ toxicity in experimental animal studies in the following organ(s): Eyes, Kidney. Diquat dibromide caused Cataract in animal studies.



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Assessment mutagenicity

Glyphosate was not mutagenic or genotoxic in a battery of in vitro and in vivo tests. Diguat dibromide was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Glyphosate was not carcinogenic in lifetime feeding studies in rats and mice. Important comment to IARC Listing:, Our expert opinion is that classification as a carcinogen is not warranted.

Diquat dibromide was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH		
Diquat dibromide	85-00-7	Group A4
NTP		
None.		
IARC		
Ammonium salt of glyphosate	114370-14-8	Overall evaluation: 2A
Assessment toxicity to reproduction		

Glyphosate did not cause reproductive toxicity in a two-generation study in rats. Diquat dibromide did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Glyphosate did not cause developmental toxicity in rats and rabbits. Diquat dibromide caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Diquat dibromide are related to maternal toxicity.

Aspiration hazard

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

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 5.4 mg/l static test; Exposure time: 96 h Test conducted with a similar formulation.
	LC50 (Lepomis macrochirus (Bluegill sunfish)) 12.1 - 21.5 mg/l static test; Exposure time: 72 h The value mentioned relates to the active ingredient diquat dibromide.
	LC50 (Oncorhynchus mykiss (rainbow trout)) 14.8 mg/l static test; Exposure time: 96 h The value mentioned relates to the active ingredient diquat dibromide.
Chronic toxicity to fish	Oncorhynchus mykiss (rainbow trout) flow-through test NOEC: >= 9.63 mg/l The value mentioned relates to the active ingredient glyphosate.

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Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 11 mg/l static test; Exposure time: 48 h Test conducted with a similar formulation.	
	EC50 (Daphnia magna (Water flea)) 0.77 - 1.19 mg/l static test; Exposure time: 48 h The value mentioned relates to the active ingredient diquat dibromide.	
Chronic toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 12.5 mg/l Exposure time: 21 d The value mentioned relates to the active ingredient glyphosate.	
Toxicity to aquatic plants	EbC50 (Raphidocelis subcapitata (freshwater green alga)) 72.9 mg/l static test; Exposure time: 72 h The value mentioned relates to the active ingredient glyphosate.	
	NOEC (Raphidocelis subcapitata (freshwater green alga)) 26.4 mg/l static test; Exposure time: 72 h The value mentioned relates to the active ingredient glyphosate.	
	EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.0094 mg/l static test; Exposure time: 96 h The value mentioned relates to the active ingredient diquat dibromide.	
Biodegradability	Glyphosate: Not rapidly biodegradable Diquat dibromide: Not rapidly biodegradable	
Кос	Diquat dibromide: Koc: 2184750	
Bioaccumulation	Glyphosate: Bioconcentration factor (BCF) < 1 Does not bioaccumulate. Diquat dibromide: Bioconcentration factor (BCF) 1 Does not bioaccumulate.	
Mobility in soil	Glyphosate: Slightly mobile in soils Diquat dibromide: Immobile in soil	
Results of PBT and vPvB assessment		
PBT and vPvB assessment	Glyphosate: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Diquat dibromide: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).	
Additional ecological information	No further ecological information is available.	
Environmental precautions	Apply this product as specified on the label. Do not apply directly to water, to areas where surface water is present	



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or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Retain and dispose of contaminated wash water.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste	treatment	methods
T uolo	ucument	moulous

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

49CFR UN number Class Packaging group Proper shipping name	3077 9 III ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (DIQUAT DIBROMIDE) Reportable Quantity is reached with 34,482 lb of product.
IMDG UN number Class Packaging group Marine pollutant Proper shipping name	3077 9 III YES ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DIQUAT DIBROMIDE)
IATA UN number Class Packaging group Environm. Hazardous Mark Proper shipping name	3077 9 III YES ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DIQUAT DIBROMIDE)



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This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification:

COMPOUNDS, TREE OR WEED KILLING, N.O.I. other than poison, HAVING A DENSITY OF 20 LBS OR GREATER PER CUBIC FOOT

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 524-535 US Federal Regulations TSCA list Polyether modified trisiloxane 134180-76-0 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.

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

US State Right-To-Know Ingredients Diquat dibromide	85-00-7	CA, CT, IL, NJ, RI
Environmental CERCLA Yes Diquat dibromide	85-00-7	
Clean Water Section 307(a)(1) None. Safe Drinking Water Act Maximum Conta Yes Diquat dibromide	aminant Levels 85-00-7	

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

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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 swallowed. Harmful if inhaled. Causes moderate eye irritation.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms		
49CFR	Code of Federal Regulations, Title 49	
ACGIH	US. ACGIH Threshold Limit Values	
ATE	Acute toxicity estimate	
CAS-Nr.	Chemical Abstracts Service number	
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	
EINECS	European inventory of existing commercial substances	
ELINCS	European list of notified chemical substances	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
N.O.S.	Not otherwise specified	
NTP	US. National Toxicology Program (NTP) Report on Carcinogens	
OECD	Organization for Economic Co-operation and Development	
TDG	Transportation of Dangerous Goods	
TWA	Time weighted average	
UN	United Nations	
WHO	World health organisation	
NFPA 704 (National Fire Protection Association):		
Health - 2 FI	ammability - 0 Instability - 0 Others -	
HMIS (Hazardous Mate	rials Identification System, based on the Fourth Edition Ratings Guide)	

Health - 1* Flammability - 0 Physical Hazard - 0

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

PPE -

Reason for Revision: New Safety Data Sheet.

Revision Date: 01/27/2023

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

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are



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