



## ROUNDUP FLEX

Version 1 / IRL  
102000040169

1/10  
Revision Date: 15.06.2021  
Print Date: 15.06.2021

---

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

#### 1.1 Product identifier

**Trade name** ROUNDUP FLEX  
**UFI** WYU1-T0P0-D002-AADX  
**Product code (UVP)** 62290143

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

**Use** Herbicide  
**Restrictions on use** See product label for restrictions.

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

**Supplier** Bayer CropScience Ltd  
Bayer Ltd  
The Atrium, Blackthorn Road  
Sandyford  
Dublin 18  
Ireland  
**Telephone** +353-1-2999313  
**Responsible Department** Email: ukcropsupport@bayer.com

#### 1.4 Emergency telephone no.

**Emergency telephone no.** 00800 1020 3333 (24 hr)

---

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Not classified, the classification criteria are not met.

#### 2.2 Label elements

**Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Hazard label for supply/use required.

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

- Potassium salt of glyphosate

#### **Hazard statements**

**EUH401** To avoid risks to human health and the environment, comply with the instructions for use.

#### **Precautionary statements**

**ROUNDUP FLEX**Version 1 / IRL  
102000040169

2/10

Revision Date: 15.06.2021  
Print Date: 15.06.2021

P234 Keep only in original container.  
P501 Dispose of contents/container in accordance with local regulation.

**2.3 Other hazards**

No additional hazards known beside those mentioned.

Potassium salt of 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).

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**Soluble concentrate (SL)  
Potassium salt of Glyphosate 588 g/l**Hazardous components**

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Potassium salt of glyphosate	70901-12-1	Aquatic Chronic 2, H411	44
Alkyl polysaccharide	68515-73-1 500-220-1 01-2119488530-36-XXXX	Eye Dam. 1, H318	< 20
Nitrotyl	226563-63-9	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	< 5

**Further information**

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures**

**General advice** Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

**Inhalation** Move to fresh air. Keep patient warm and at rest. 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. Get medical attention if irritation develops and persists.



## **ROUNDUP FLEX**

Version 1 / IRL  
102000040169

**3/10**  
Revision Date: 15.06.2021  
Print Date: 15.06.2021

---

<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. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	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.
<b>4.2 Most important symptoms and effects, both acute and delayed</b>	
<b>Symptoms</b>	To date no symptoms are known.
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>	
<b>Risks</b>	This product is not a cholinesterase inhibitor.
<b>Treatment</b>	Treatment with atropine and oximes is not indicated. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

---

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1 Extinguishing media**

<b>Suitable</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable</b>	High volume water jet

**5.2 Special hazards arising from the substance or mixture** In the event of fire the following may be released: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Oxides of phosphorus

### **5.3 Advice for firefighters**

<b>Special protective equipment for firefighters</b>	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
<b>Further information</b>	Contain the spread of the fire-fighting media. Do not allow water to come into direct contact with the product.

---

## **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. Use personal protective equipment.
<b>6.2 Environmental precautions</b>	Do not allow to get into surface water, drains and ground water.



## **ROUNDUP FLEX**

Version 1 / IRL  
102000040169

4/10

Revision Date: 15.06.2021  
Print Date: 15.06.2021

---

### **6.3 Methods and materials for containment and cleaning up**

**Methods for cleaning up** 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.

**6.4 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**

### **7.1 Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

**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. Keep working clothes separately. Garments that cannot be cleaned must be destroyed (burnt).

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

**Requirements for storage areas and containers** Store in original container. 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 a place accessible by authorized persons only. Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode. Protect from freezing. 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.

**7.3 Specific end use(s)** Refer to the label and/or leaflet.

---

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

No known occupational limit values.

### **8.2 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



**ROUNDUP FLEX**

Version 1 / IRL  
102000040169

5/10

Revision Date: 15.06.2021  
Print Date: 15.06.2021

circumstances of exposure.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

**Hand protection**

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0.4 mm
Directive	Protective gloves complying with EN 374.

**Eye protection**

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection**

Wear standard coveralls and Category 3 Type 6 suit.

If there is a risk of significant exposure, consider a higher protective type 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.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

**General protective measures**

If product is handled while not enclosed, and if contact may occur: Complete suit protecting against chemicals

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

<b>Form</b>	Liquid, clear to slightly turbid
<b>Colour</b>	amber to dark brown
<b>Odour</b>	amine-like
<b>Odour Threshold</b>	No data available
<b>pH</b>	3.8 - 5.0 (1 %) (23 °C)
<b>Melting point/range</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash point</b>	> 100 °C does not flash
<b>Flammability</b>	No data available
<b>Auto-ignition temperature</b>	> 600 °C

**ROUNDUP FLEX**Version 1 / IRL  
102000040169

6/10

Revision Date: 15.06.2021  
Print Date: 15.06.2021

---

<b>Thermal decomposition</b>	No data available
<b>Minimum ignition energy</b>	No data available
<b>Self-accelarating decomposition temperature (SADT)</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Relative vapour density</b>	No data available
<b>Relative density</b>	1.3426 (20 °C) Water at 4 °C
<b>Density</b>	1.34 g/cm <sup>3</sup> (20 °C)
<b>Water solubility</b>	soluble
<b>Partition coefficient: n-octanol/water</b>	Potassium salt of glyphosate: log Pow: < -3.2 (25 °C)
<b>Viscosity, dynamic</b>	No data available
<b>Viscosity, kinematic</b>	79.83 mm <sup>2</sup> /s (20 °C)
<b>Oxidizing properties</b>	No data available
<b>Explosivity</b>	Not explosive
<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.

---

**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>	Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.
<b>10.4 Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>10.5 Incompatible materials</b>	Galvanised steel, Carbon steel, Unlined mild steel Store only in the original container.
<b>10.6 Hazardous decomposition products</b>	Hazardous products of combustion: see section 5.

---



## ROUNDUP FLEX

Version 1 / IRL  
102000040169

7/10

Revision Date: 15.06.2021  
Print Date: 15.06.2021

---

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

<b>Acute oral toxicity</b>	LD50 (Rat) > 2,000 mg/kg Test conducted with a similar formulation.
<b>Acute inhalation toxicity</b>	Based on available data, the classification criteria are not met.
<b>Acute dermal toxicity</b>	LD50 (Rat) > 2,000 mg/kg Test conducted with a similar formulation.
<b>Skin corrosion/irritation</b>	No skin irritation (Rabbit) Test conducted with a similar formulation.
<b>Serious eye damage/eye irritation</b>	Slight irritant effect - does not require labelling. (Rabbit) Test conducted with a similar formulation.
<b>Respiratory or skin sensitisation</b>	Skin: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test Test conducted with a similar formulation.

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

Potassium salt of glyphosate: Based on available data, the classification criteria are not met.

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

Potassium salt of glyphosate did not cause specific target organ toxicity in experimental animal studies.

#### Assessment mutagenicity

Potassium salt of glyphosate is not considered mutagenic.

#### Assessment toxicity to reproduction

Potassium salt of glyphosate: Based on available data, the classification criteria are not met.

#### Assessment developmental toxicity

Potassium salt of glyphosate: Based on available data, the classification criteria are not met.

#### Aspiration hazard

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

#### Further information

No further toxicological information is available.

---

### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1 Toxicity

<b>Toxicity to fish</b>	LC50 (Oncorhynchus mykiss (rainbow trout)) > 1,039 mg/l Exposure time: 96 d Test conducted with a similar formulation.  LC50 (Lepomis macrochirus (Bluegill sunfish)) 47 mg/l static test; Exposure time: 96 h The value mentioned relates to the active ingredient glyphosate.
<b>Chronic toxicity to fish</b>	Oncorhynchus mykiss (rainbow trout)

**ROUNDUP FLEX**Version 1 / IRL  
102000040169

8/10

Revision Date: 15.06.2021  
Print Date: 15.06.2021

	flow-through test NOEC: $\geq 9.63$ mg/l The value mentioned relates to the active ingredient glyphosate.
<b>Toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)) 243 mg/l Exposure time: 48 h Test conducted with a similar formulation.
<b>Chronic toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)): 12.5 mg/l Exposure time: 21 d The value mentioned relates to the active ingredient glyphosate.
<b>Toxicity to aquatic plants</b>	ErC50 (Raphidocelis subcapitata (freshwater green alga)) 118 mg/l static test; Exposure time: 72 h
<b>12.2 Persistence and degradability</b>	
<b>Biodegradability</b>	Potassium salt of glyphosate: Not readily biodegradable.
<b>Koc</b>	Potassium salt of glyphosate: Koc: 884
<b>12.3 Bioaccumulative potential</b>	
<b>Bioaccumulation</b>	Potassium salt of glyphosate: Bioconcentration factor (BCF) $< 1$
<b>12.4 Mobility in soil</b>	
<b>Mobility in soil</b>	Potassium salt of glyphosate: Variable, depends on temperature, soil type, soil moisture, soil pH and organic matter content.
<b>12.5 Results of PBT and vPvB assessment</b>	
<b>PBT and vPvB assessment</b>	Potassium salt of 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).
<b>12.6 Other adverse effects</b>	
<b>Additional ecological information</b>	No further ecological information is available.

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

<b>Product</b>	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.
<b>Contaminated packaging</b>	Not completely emptied packagings should be disposed of as hazardous waste.
<b>Waste key for the unused product</b>	<b>02 01 08*</b> agrochemical waste containing hazardous substances

**SECTION 14: TRANSPORT INFORMATION**

According to ADN/ADR/RID/IMDG/IATA not classified as dangerous goods.





## **ROUNDUP FLEX**

Version 1 / IRL  
102000040169

9/10  
Revision Date: 15.06.2021  
Print Date: 15.06.2021

---

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

**14.1 – 14.5** Not applicable.

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

No transport in bulk according to the IBC Code.

---

## **SECTION 15: REGULATORY INFORMATION**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **Republic of Ireland Regulations**

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

#### **Supply and Use**

European Communities (Prohibition of Certain Active Substances in Plant Protection Products) Regulations 1981 (SI No 320/1981)

European Communities (Authorization, Placing on the Market, Use and Control of Plant Protection Products) Regulations 2003 (SI No 83/2003)

European Communities (Classification, Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations 2001 (SI No 624/2001)

2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations, 2001 (SI No 619/2001)

#### **Waste Treatment**

Landfill Directive

Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)

#### **Further information**

WHO-classification: III (Slightly hazardous)

### **15.2 Chemical safety assessment**

A chemical safety assessment is not required.

---

## **SECTION 16: OTHER INFORMATION**

### **Text of the hazard statements mentioned in Section 3**

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### **Abbreviations and acronyms**

**ROUNDUP FLEX**Version 1 / IRL  
10200004016910/10  
Revision Date: 15.06.2021  
Print Date: 15.06.2021

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
CAS-Nr.	Chemical Abstracts Service number
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
ELV	Exposure Limit Value
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
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SI	Statutory Instrument
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The above information is intended to give general health and safety guidance on the storage and transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

**Reason for Revision:** Safety Data Sheet according to Regulation (EU) No. 2015/830.

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