



Safety Data Sheet

RELIANCE

Preparation Date 12-Jan-2018

Revision date 12-Jan-2018

Revision Number: 1

1. Identification of the substance/mixture and of the company/undertaking

1.1 Identification of the product

Product code HCS01
Product Description: RELIANCE
Pure substance/preparation Preparation

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended use Herbicide

1.3 Details of the Supplier of the Safety Data Sheet

Supplier UPL Europe Ltd
The Centre
Birchwood Park
Warrington
WA3 6YN Cheshire
UK
Tel. : +44 (0) 1925 819999
Fax : +44 (0) 1925 856075
E-mail address info.uk@uniphos.com

1.4 Emergency Telephone Number

Emergency telephone number (CARECHEM 24): +44 (0) 1235 239670

United Kingdom NHS no. 111

2. Hazards Identification

2.1 Classification of the mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute oral toxicity	Category 4 - (H302)
Skin sensitization	Category 1 - (H317)
STOT - Repeated Exposure	Category 2 - (H373)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

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

2.2 Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]



Signal Word

WARNING

Hazard Statements

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H373 - May cause damage to organs through prolonged or repeated exposure if inhaled

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P363 - Wash contaminated clothing before reuse

P501 - Dispose of contents/ container in accordance with national regulation

EU Specific Hazard Statements

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

2.3 Other Hazards

Contains: 1,2-Benzisothiazolin-3-one

3. Composition/information on Ingredients

3.2. MIXTURES

Chemical name	EC No	CAS-No	Weight %	Classification (Dir.67/548)	EU - GHS Substance Classification	REACH No.
Diflufenican	-	83164-33-4	10 - 20	-	Aquatic Chronic 3 (H412)	no data available
flufenacet (ISO)	-	142459-58-3	30 - 40	-	Acute Tox. 4 (H302) STOT RE 2 (H373) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	no data available
Polyethoxylated polyarylphenol	-	99734-09-5	1 - 5	-	Aquatic Chronic 3 (H412)	no data available
1,2-Benzisothiazolin-3-one	220-120-9	2634-33-5	< 1	-	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)	no data available

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

4. First aid measures

4.1 Description of first-aid measures

General advice	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
Eye contact	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists, consult a specialist
Skin contact	Wash off immediately with plenty of water If symptoms persist, call a physician
Ingestion	Rinse mouth with water Call a POISON CENTER or doctor if you feel unwell
Inhalation	Move to fresh air Call a POISON CENTER or doctor if you feel unwell

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

No information available

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media As aqueous suspension ignition and fire is not likely.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media High volume water jet

5.2 Special hazards arising from the substance or mixture

Special Hazard Thermal decomposition can lead to release of irritating gases and vapors

5.3 Advice for Firefighters

Wear self-contained breathing apparatus and protective suit

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas

6.2 Environmental Precautions

Prevent further leakage or spillage if safe to do so
Do not allow material to contaminate ground water system
Do not flush into surface water or sanitary sewer system

6.3 Methods and material for containment and cleaning up

Dike far ahead of liquid spill for later disposal
Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

7. Handling and Storage

7.1 Precautions for Safe Handling

Handling

Handle in accordance with good industrial hygiene and safety practice
Avoid contact with skin, eyes and clothing

Hygiene Measures

Use only outdoors or in a well-ventilated area

7.2 Conditions for safe storage, including any incompatibilities

Keep at temperatures above 0°C

7.3 Specific end uses

No information available.

8. Exposure Controls/Personal Protection

8.1 Control Parameters

Exposure Limits Apply technical measures to comply with the occupational exposure limits

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2 Exposure Controls

Engineering controls Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Eye protection	Safety glasses with side-shields.
Skin protection	Long sleeved clothing.
Hand protection	Nitril/Nylon EN388 4121, EN 374-2003 JKL (Thickness 0.5 mm) Permeability > 480 min.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators
Recommended filter type:	P2 .

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	white	
Physical state	Liquid , suspension concentrate (SC)	
Odor	Mild chemical	

<u>Property</u>	<u>VALUES</u>	<u>Remarks/ Method</u>
pH	approx 7.5	(1% aq)
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash Point	> 102 °C	EEC A.9
Flammability (solid, gas)	Not applied	
Surface tension	47.11 mN/m	20 °C
Relative Density	1.2123	20°C
Water solubility	dispersible	
Solubility in Other Solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	234 mm ² /s	20 °C
Oxidizing properties	Non oxidizing (according to A17 test)	
Explosive properties	According to the chemical structure no explosion reaction is expected	

9.2 OTHER INFORMATION

VOC Content No information available

10. Stability and Reactivity**10.1 Reactivity**

None under normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Heat, flames and sparks

10.5 Incompatible Materials

Strong oxidizing agents

10.6 Hazardous Decomposition Products

Carbon oxides
Nitrogen oxides (NO_x)
Oxides of sulfur
Fluorine compounds.

11. Toxicological Information

11.1 Information on Toxicological Effects

Acute toxicity

Local effects

Inhalation

There is no data available for this product.

Eye contact

There is no data available for this product.

Skin contact

There is no data available for this product.

Ingestion

There is no data available for this product.

LD50 Oral

500-2000 mg/kg (rat)

LD50 Dermal

> 4000 mg/kg (rat)

LC50 Inhalation

> 2078 mg/m³ (rat)

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Propylene Glycol 57-55-6	= 20000 mg/kg (Rat)	= 20800 mg/kg (Rabbit)	
Diflufenican 83164-33-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	>5.12 mg/l

Chronic toxicity

Skin Corrosion/Irritation

No skin irritation.

Eye damage/irritation

No eye irritation.

Sensitization

May cause sensitization by skin contact.

Carcinogenic effects

No information available

Mutagenic effects

No information available

Reproductive effects

No information available

STOT - Single Exposure

No information available.

STOT - Repeated Exposure

Flufenacet: May cause damage to organs through prolonged or repeated exposure.

12. Ecological Information

12.1 Toxicity

Aquatic invertebrate

D. magna(48 h)

EC50 = 55.23 mg/L

Algae

P. subcapitata (72h)

EbC50 = 0.07 mg/L

ErC50 = 0.011 mg/L

Higher plant

Lemna minor (7 days)

ErC50

Frond number 30.5 µg/L (above the visual limit of solubility)

Biomass 68.7 µg/L (above the visual limit of solubility)

EyC50

Frond number 11.1 µg/L (above the visual limit of solubility)

Biomass 27.7 µg/L (above the visual limit of solubility)

Full recovery was achieved at 160 µg test item/L after 5 recovery periods.

12.2 Persistence and Degradability

No information available

12.3 Bioaccumulative Potential

No information available

Chemical name	Log Pow
1,2-Benzisothiazolin-3-one	1.3

12.4 Mobility in Soil

No information available.

12.5 Results of PBT and vPvB Assessment

No information available

12.6 Other Adverse Effects

No information available.

13. Disposal Considerations

13.1 Waste Treatment Methods

Waste from Residues/Unused Products

Dispose of in accordance with local regulations.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

EWC waste disposal No

020108 - agrochemical waste containing dangerous substances.

OTHER INFORMATION

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

14. Transport Information

ADR/RID

14.1 UN-No	UN3082
14.2 Proper shipping name	Environmentally hazardous substance, liquid, n.o.s (flufenacet, Diflufenican,)
14.3 Hazard class	9
14.4 Packing group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	274, 335, 375, 601

IMDG/IMO

14.1 UN-No	UN3082
14.2 Proper shipping name	Environmentally hazardous substance, liquid, n.o.s (flufenacet , Diflufenican , Mixture)
14.3 Hazard class	9
14.4 Packing group	III
14.5 Environmental Hazard	Marine Pollutant
14.6 Special Provisions	274, 335, 969

IATA/ICAO

14.1 UN-No	UN3082
14.2 Proper shipping name	Environmentally hazardous substance, liquid, n.o.s (flufenacet , Diflufenican , Mixture)
14.3 Hazard class	9
14.4 Packing group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	A97, A158, A197

15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Registration n° MAPP 18372

- To avoid risks to man and the environment, comply with the instructions for use

International Inventories

TSCA	Present
EINECS/ ELINCS	Present
DSL/NDSL	Present
PICCS	Present
ENCS	Present
China	Present
AICS	Present
KECL	Present

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 AICS - Australian Inventory of Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

16. Other Information

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H373 - May cause damage to organs (a,b,c) through prolonged or repeated exposure if inhaled

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

Revision date 12-Jan-2018**Revision note** Not applicable**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

The information contained is based on our knowledge of the product at the date of publishing.

It applies to the PRODUCT AS SUCH. In case of formulation or mixture, make sure that a new danger will not appear.

Users are advised of possible additional hazards when the product is used in applications for which it was not intended.

This sheet shall only be used and duplicated for prevention and Safety purposes.

For rates and use recommendations, refer to the information displayed on the packaging.

It is the responsibility of the handlers of the product to pass on this safety data sheet to any subsequent persons who will come into contact with the product.

End of Safety Data Sheet