

Trade name: INARI**Product no.:** NI 022 C0058 UK**Current version :** 1.0.0, issued: 25.02.2020**Replaced version:** -, issued: -**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****INARI****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

Plant protection product

Fungicide

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet**Address**

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Suite 5, 3 Riverside

Granta Park - Great Abington

Cambridgeshire CB21 6AD

United Kingdom

Telephone no. +44 (0) 1223 894 261

Fax no. +44 (0)1223 891210

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Advice on Safety Data Sheet

certis@certiseurope.co.uk

1.4 Emergency telephone number

Carechem 24 GB: +44 870 190 6777

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Aquatic Chronic 2; H411

Classification information

Classification and labelling are based on toxicological studies performed on the product (mixture).

Classification and labelling with respect to water pollution risks are based on ecotoxicological studies performed on the product (mixture).

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

GHS09

Signal word

-

Hazard statement(s)

H411

Toxic to aquatic life with long lasting effects.

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EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
 EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statement(s)

P273 Avoid release to the environment.
 P391 Collect spillage.
 P501 Dispose of contents/ container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty clean containers which can be disposed of as non-hazardous waste.

2.3 Other hazards

PBT assessment
 No data available.

vPvB assessment
 No data available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable. The product is not a substance.

3.2 Mixtures**Hazardous ingredients**

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration %
1	hydrocarbons, C10-C13, aromatics, <1% naphthalene		
	- 922-153-0 - -	Asp. Tox. 1; H304 EUH066 Aquatic Chronic 2; H411	>= 10.00 - < 25.00 %-b.w.
2	Alcohols, C16-18 and C18 unsaturated, ethoxylated		
	68920-66-1 500-236-9 - 01-2119489407-26	Skin Irrit. 2; H315 Aquatic Chronic 2; H411	>= 10.00 - < 25.00 %-b.w.
3	Ethoxylated Polyarylphenol		
	99734-09-5 - -	Aquatic Chronic 3; H412	>= 5.00 - < 10.00 %-b.w.
4	Cyflufenamid		
	180409-60-3 - - -	Aquatic Chronic 1; H410	>= 5.00 - < 10.00 %-b.w.
5	Polyarylphenyl ether phosphate		
	90093-37-1 - - -	Eye Irrit. 2; H319	< 2.50 %-b.w.
6	1,2-benzisothiazol-3(2H)-one		
	2634-33-5 220-120-9 613-088-00-6 -	Acute Tox. 4*; H302 Aquatic Acute 1; H400 Eye Dam. 1; H318 Skin Irrit. 2; H315 Skin Sens. 1; H317	>= 0.05 - < 1.00 %-b.w.

Full Text for all H-phrases and EUH-phrases: pls. see section 16

(* , ** , *** , ****) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2

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No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
6	-	Skin Sens. 1; H317: C >= 0.05%	-	-

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

No special measures necessary. In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes and launder thoroughly before reusing.

After inhalation

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air.

After skin contact

When in contact with the skin, clean with soap and water.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes).

After ingestion

Call a doctor immediately and show label or packaging. Do not induce vomiting. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam; Carbon dioxide; Extinguishing powder; Water spray jet

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO); carbonyl compounds; Nitrogen oxides (NO_x); Hydrogen fluoride (HF)

5.3 Advice for firefighters

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. Wear protective clothing. Cool closed containers exposed to fire with water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge uncontrolled into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). When collected, handle material as described under the section heading "Disposal considerations".

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Information regarding waste disposal, see chapter 13. Information regarding personal protective measures, see chapter 8. Information regarding safe handling, see chapter 7.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Advice on safe handling**

No special measures necessary if stored and handled as prescribed. Provide good ventilation at the work area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Do not inhale vapours.

Advice on protection against fire and explosion

No special measures necessary.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Keep from freezing. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Keep only in the original container.

Incompatible products

Do not store together with foodstuffs.

7.3 Specific end use(s)**Industry solution**

Always read the label and product information before use.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****DNEL, DMEL and PNEC values****DNEL values (worker)**

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	Alcohols, C16-18 and C18 unsaturated, ethoxylated			68920-66-1 500-236-9	
	dermal	Long term (chronic)	systemic	2080	mg/kg/day
	inhalative	Long term (chronic)	systemic	294	mg/m ³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	Alcohols, C16-18 and C18 unsaturated, ethoxylated			68920-66-1 500-236-9	
	oral	Long term (chronic)	systemic	25	mg/kg/day
	dermal	Long term (chronic)	systemic	1250	mg/kg/day
	inhalative	Long term (chronic)	systemic	87	mg/m ³

PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	Alcohols, C16-18 and C18 unsaturated, ethoxylated		68920-66-1 500-236-9	
	water	fresh water	0.007	mg/L
	water	Aqua intermittent	0.1	mg/L

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water	fresh water sediment	22.79	mg/kg dry weight
water	marine water	0.001	mg/L
water	marine water sediment	2.28	mg/kg dry weight
soil	-	1	mg/kg dry weight
sewage treatment plant	-	10	g/L

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses (EN 166)

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material	butyl rubber		
Material thickness	>=	0.4	mm
Breakthrough time	>	480	min

Other

Chemical-resistant work clothes. Rubber boots. (EN 13832-3/EN ISO 20345)

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour	
liquid, viscous	
white to slightly yellow	
Odour	
aromatic	
Odour threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
Value	103 °C
Melting point / melting range	
Value	appr. -10 - 0 °C
Decomposition point / decomposition range	
No data available	
Flash point	
Value	112 °C
Method	Cleveland open cup

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Auto-ignition temperature			
No data available			
Oxidising properties			
not oxidizing			
Explosive properties			
The product does not have explosive properties.			
Flammability (solid, gas)			
No data available			
Lower flammability or explosive limits			
No data available			
Upper flammability or explosive limits			
No data available			
Vapour pressure			
Value	3.54	* 10 ⁻⁵ Pa	
Reference temperature	20	°C	
Comments	Active substance		
Vapour density			
No data available			
Evaporation rate			
No data available			
Relative density			
Value	1.027		
Reference temperature	20	°C	
Comments	H2O = 1		
Density			
No data available			
Solubility in water			
Comments	insoluble		
Solubility(ies)			
No data available			
Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	Cyflufenamid	180409-60-3	-
log Pow		4.7	
Reference temperature		25	°C
with reference to	pH 6,75		
Source	Manufacturer		
2	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
log Pow		1.45	
Source	Manufacturer		
Viscosity			
Value	3.7	x 10 ⁻⁵ m ² /s	
Reference temperature	40	°C	
Comments	Though this product contains 18% of solvent naphtha (petroleum), heavy arom., the viscosity of this product was more than 2,05× 10 ⁻⁵ m ² /s. Therefore H304 was not applicable.		

9.2 Other information

Other information
Surface Tension: 31,9 mN/m at 25°C

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SECTION 10: Stability and reactivity

10.1 Reactivity

The product is stable under normal storage and handling conditions.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

10.4 Conditions to avoid

None, if handled according to intended use.

10.5 Incompatible materials

Oxidizing agents; strong bases; strong acids

10.6 Hazardous decomposition products

Combustion or thermal decomposition may generate toxic vapours.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity			
No	Product Name		
1	INARI		
LD50	>	5000	mg/kg
Species	rat		
Source	Manufacturer		

Acute dermal toxicity			
No	Product Name		
1	INARI		
LD50	>	2000	mg/kg
Species	rat		
Source	Manufacturer		

Acute inhalational toxicity			
No	Product Name		
1	INARI		
LC50	>	4.41	mg/l
Duration of exposure	4 h		
State of aggregation	Dust/mist		
Species	rat		
Source	Manufacturer		
Comments	highest checkable concentration		

Skin corrosion/irritation	
No	Product Name
1	INARI
Species	rabbit
Source	Manufacturer
Evaluation	low-irritant
Evaluation/classification	Based on available data, the classification criteria are not met.

Serious eye damage/irritation	
No	Product Name
1	INARI
Species	rabbit
Source	Manufacturer
Evaluation	low-irritant
Evaluation/classification	Based on available data, the classification criteria are not met.

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Respiratory or skin sensitisation	
No	Product Name
1	INARI
Route of exposure	Skin
Species	guinea pig
Source	Manufacturer
Evaluation	Non-sensitizing

Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	Cyflufenamid	180409-60-3	-
Source	Manufacturer		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Reproduction toxicity			
No	Substance name	CAS no.	EC no.
1	Cyflufenamid	180409-60-3	-
Source	Manufacturer		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Carcinogenicity			
No	Substance name	CAS no.	EC no.
1	Cyflufenamid	180409-60-3	-
Source	Manufacturer		
Evaluation/classification	Based on available data, the classification criteria are not met.		

STOT - single exposure	
No data available	

STOT - repeated exposure	
No data available	

Aspiration hazard	
No data available	

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Product Name		
1	INARI		
LC50		9.84	mg/l
Duration of exposure		96	h
Species	Oncorhynchus mykiss		
Source	Manufacturer		

Toxicity to fish (chronic)	
No data available	

Toxicity to Daphnia (acute)			
No	Product Name		
1	INARI		
EC50		9.48	mg/l
Duration of exposure		48	h
Species	Daphnia		
Source	Manufacturer		

Toxicity to Daphnia (chronic)	
No data available	

Toxicity to algae (acute)			
No	Product Name		
1	INARI		
ErC50		1.628	mg/l

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Duration of exposure	72	h
Species	Algae	
Source	Manufacturer	

Toxicity to algae (chronic)

No	Product Name		
1	INARI		
NOEC		0.395	mg/l
Species	Algae		
Source	Manufacturer		

Bacteria toxicity

No data available

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	Alcohols, C16-18 and C18 unsaturated, ethoxylated	68920-66-1	500-236-9
Value		99	%
Duration		28	day(s)
Method	OECD 301 B		
Source	ECHA		
2	Cyflufenamid	180409-60-3	-
Source	Manufacturer		
Evaluation	not readily biodegradable		
3	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
Evaluation	biodegradable		

12.3 Bioaccumulative potential

Bioconcentration factor (BCF)			
No	Substance name	CAS no.	EC no.
1	Cyflufenamid	180409-60-3	-
BCF		528	
Species	fish		
Source	Manufacturer		
2	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
BCF		2	
Source	Manufacturer		

Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	Cyflufenamid	180409-60-3	-
log Pow		4.7	
Reference temperature		25	°C
with reference to	pH 6,75		
Source	Manufacturer		
2	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
log Pow		1.45	
Source	Manufacturer		

12.4 Mobility in soil

Mobility in soil			
No	Substance name	CAS no.	EC no.
1	Cyflufenamid	180409-60-3	-
log Koc		3	- 3.3
Source	Manufacturer		

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	No data available.
vPvB assessment	No data available.

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No data available.

12.7 Other information**Other information**

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information**14.1 Transport ADR/RID/ADN**

Class	9
Classification code	M6
Packing group	III
Hazard identification no.	90
UN number	UN3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name	Cyflufenamid
Tunnel restriction code	-
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree"

14.2 Transport IMDG

Class	9
Packing group	III
UN number	UN3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name	Cyflufenamid
EmS	F-A, S-F
Label	9
Marine pollutant mark	Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

Class	9
Packing group	III
UN number	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Technical name	Cyflufenamid
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree"

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

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

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Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.	No 3
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Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category:	E2
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Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

Regulation (EC) No 1107/2009 concerning the placing of plant protection products on the market

Regulation (EU) No 547/2011 implementing Regulation (EC) No 1107/2009 as regards labelling requirements for plant protection products

Annex III

SP1	Do not contaminate water with the product or its container.
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15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

EUH066	Repeated exposure may cause skin dryness or cracking.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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.

Department issuing safety data sheet

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This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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