

Safety data sheet in accordance with Regulation (EC) No 1907/2006

Prepared: November 15, 2008

Version : 10 Revised: September 5, 2018

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****Cyflufenamid 10 SC****1.2 Relevant identified uses of the substance or mixture and use advised against**

Fungicide for agricultural use

1.3 Details of the supplier of the safety data sheet

Distributor's Name : Nisso Chemical Europe GmbH

Address : Berliner Allee 42

40212 Düsseldorf

Germany

Telephone Number : +49-(0)211-130 66 86 0

Telefax Number : +49-(0)211-328231

Email: : sds@nisso-chem.de

1.4 Emergency Telephone Number: CHEMTREC +1-703-741-5970 (24-hour)

2. HAZARDS IDENTIFICATION**2.1 Classification of the mixture****2.1.1 Classification according to Regulation (EC) No 1272/2008**

Aquatic Chronic 2 : H411 Toxic to aquatic life with long lasting effects

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008



Hazard pictogram GHS09

Signal word No signal word

Hazard statement

H411 Toxic to aquatic life with long lasting effects

EUH208 Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.

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

Precautionary statement

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/national/international regulations.

SP 1 Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3 Other hazards

This product does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex X III.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

CAS No.	EC No.	Index No.	%(wt)	Substance name	Classification according to Regulation(EC) No 1272/2008
180409-60-3	605-896-2	—	9.7	(Z)-N-[α -(cyclopropylmethoxyimino)-2,3-difluoro-6-(trifluoromethyl)benzyl]-2-phenylacetamide ISO name: Cyflufenamid	Aquatic Chronic 1;H410
2634-33-5	220-120-9	613-08 8-00-6	<0.05	1,2-benzisothiazolin-3-one	Acute Tox4; H302, Skin Irrit.2;H315, Eye Dam 1;H318, Skin Sens.1;H317*, Aquatic Acute 1;H400
—	—	—	90.3	Water and others	—

*Specific Concentration Limits and M Factors Concentration $0.05\% \leq C$: Classification, Skin sens.1; H317

4. FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

4.1.2 Skin Contact: Remove contaminated clothing and shoes. Wash skin with soap and water. Call a POISON CENTER/doctor if irritation persists.

4.1.3 Inhalation: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

4.1.4 Ingestion: Wash out mouth with water and call a POISON CENTER/doctor. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Not available

4.3 Indication of any immediate medical attention and special treatment needed

No specific antidote. Supportive care. Treatment based on judgment of physician in response to symptoms of patient.

5. FIRE - FIGHTING MEASURES

5.1 Extinguishing media : Dry chemicals, carbon dioxide, alcohol foam or water.

Unsuitable extinguishing media : Not known

5.2 Special hazards arising from the substance or mixture

Thermal decomposition or combustion may produce carbon oxides, nitrogen oxides, methyl sulfide, sulfur dioxide, and hydrogen chloride.

5.3 Advice for firefighters

Protective equipment : Wear self-contained breathing apparatus and complete personal protective equipment.

Other information : Move containers away from fire areas if it can be done without risk. If impossible to remove containers from fire zone, cool them with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precaution, protective equipment and emergency procedures

Refer to Section 8 for personal protective equipment.

Avoid contact with skin, eyes and clothing.

Avoid breathing the mist or vapor.

6.2 Environmental precautions: This product is harmful for aquatic organisms. Avoid releasing to environment.

6.3 Methods and material for containment and cleaning up

Bank up soil or sand around spill to prevent it from flowing out to environment.

Scoop up spill with tool such as shovel, and place in closable containers for waste disposal.

Use inert absorbent (e.g. sand or vermiculite) to complete pick-up if necessary.

Use vacuum truck if spill is large.

Wash spill site with soap and plenty of water after material pick-up is complete.

Do not discharge to river, sea, lake, waterway or sewer systems directly.

Obey local/national/international regulations for health & safety and environmental protection in treating spill.

6.4 Reference to other sections

Section 8 and 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Refer to Section 8 for personal protective equipment.

Avoid breathing mist and vapor.

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

Use only in a well-ventilated area, or chemical fume hood.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Keep out of reach of children.

Store in a cool, dry place.

Keep away from direct sunlight, strong acids/bases, foods, drink and animal feedingstuffs.

7.3 Specific end use

Fungicide for agricultural use

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters : Active ingredient : TLV/ACGIH not listed

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Use general and/or local exhaust ventilation to control vapor/mist.

Provide safety showers and eyewashes.

8.2.2 Individual protection measures, such as personal protective equipment

(a) Eye protection : Use safety goggles.

(b) Skin protection : Wear suitable working clothes, hand protection and boots.

Hand protection : Protective gloves against chemicals and micro-organisms.

Glove materials; e.g. outside Rubber, Vinyl chloride resin

inside Cotton, rayon

(c) Respiratory protection: Wear suitable respirator for organic vapor.

(d) Thermal hazards : None

8.2.3 Environmental exposure controls :

Use general and/or local exhaust ventilation to control vapor and mist.

Provide safety showers and eyewashes.

Prevent from entering into drains, ditches or rivers.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	White liquid (suspension)
Odour	Mildly aromatic
Odour threshold	Not available
pH	7.0
Melting point/freezing point	-10~0°C (This product froze after storage at -10°C for 3 days.)
Initial boiling point and boiling range	Not available
Flash point	None
Evaporation rate (Butyl Acetate=1)	Not available
Flammability (solid, gas)	Not applicable
Upper/lower flammability limits or explosive limits	Not available
Vapor pressure	3.54×10^{-5} Pa at 20°C (active ingredient)
Vapor density (air=1)	Not applicable
Specific gravity (H ₂ O=1)	1.041 (at 20°C)
Solubility	
a) Water solubility :	5.20×10^{-4} g/L at 20°C, pH6.5
b) Fat solubility :	n-Hexane 18.6g/L at 20°C Methanol 653g/L at 20°C
Partition coefficient	
n-Octanol/water	$\log P_{o/w} = 4.70$ at 25°C, pH6.75 (as active ingredient)
Auto-ignition temperature	382 °C
Decomposition temperature	Not available
Viscosity	0.968 m · Pa (40°C)
Explosive properties	Not explosive
Oxidising properties	Not oxidising
9.2 Other information	
Surface tension	30.8 mN/m
Particle size distribution	Not applicable

10. STABILITY AND REACTIVITY

10.1 Reactivity

The specific test data of the reactivity hazards is not available.

10.2 Chemical stability

This product is stable under normal storage and handling conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

High temperature

10.5 Incompatible materials

Strong acids or bases

10.6 Hazardous decomposition products

Thermal decomposition or combustion may produce toxic gas such as carbon oxides, nitrogen oxides, methyl sulfide, sulfur dioxide, and hydrogen chloride.

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a) acute toxicity

Oral (rat) : LD₅₀ > 2000 mg/kg (female)

Dermal (rat): LD₅₀ > 2000 mg/kg (male, female)

Inhalation (rat) : LC₅₀ > 2.64 mg/L(4hr) (male, female) (maximum practicable concentration)

(b) skin corrosion/irritation

Dermal (rabbit): Not irritant

(c) serious eye damage/irritation

Eyes (rabbit): Minimally irritant (Effects are well below threshold for classification.)

(d) respiratory or skin sensitization

Dermal (guinea pig): Negative

Respiratory: Not available

(e) germ cell mutagenicity

For the Product: Not available

Active ingredient:

Ames test : Negative

Chromosomal aberration test : Negative

Cytogenetic test (mouse lymphoma) : Negative

(f) carcinogenicity

For the Product: Not available

Active ingredient:

Negative (rat)

Negative (mouse)

(g) reproductive toxicity

Reproductive toxicity

For the Product: Not available

Active ingredient: Negative (rat)

Tetratogenicity

For the Product: Not available

Active ingredient:

Negative (rat)

Negative (rabbit)

(h)STOT-single exposure: Not available

(i)STOT-repeated exposure:

Chronic Toxicity

For the Product: Not available

Active ingredient:

NOAEL (rat): 4.4mg/kg/ay(male), 5.5 mg/kg/day(female) (2 years)

NOAEL (mouse): 62.8mg/kg/ay(male), 9.0 mg/kg/day(female) (1.5 years)

(j)aspiration hazard: Not available

(k)Others: Not available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Acute Toxicity for Fish (Rainbow trout): LC₅₀ : > 1000 mg/L (96hr)

Acute Toxicity for Daphnia: EC₅₀ : 950 mg/L (48hr)

Acute Toxicity for Algae: E_rC₅₀ : > 200 mg/L (72hr)

Chronic Toxicity for Algae: NOEC: 0.596 mg/L

12.2 Persistence and degradability

For the Product: Not available

Active ingredient: Not readily biodegradable.

12.3 Bioaccumulative potential

For the Product: Not available

Active ingredient: BCF 528 at 10 µg/L (Mean of 10 -28 days)

12.4 Mobility in soil

For the Product: Not available

Active ingredient: Low (K_{oc}=1003~2100)

12.5 Results of PBT and vPvB assessment:

This product does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex X III.

12.6 Other adverse effects : Not available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

- 1) Waste disposal according to 91/689/EEC in the corresponding versions (hazardous waste).
- 2) Consider classifications (European waste catalogue) 02 01 or 07 04.
- 3) Dispose of contents/container in accordance with local/national/international regulations.

14. TRANSPORT INFORMATION

14.1 IMDG

UN No. 3082

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Cyflufenamid mixture)

Hazard Class 9

Packing Group III

Marin pollutant Applicable

14.2 RID/ ADR

UN No. 3082

Name and description ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Cyflufenamid mixture)

Class 9

Packing Group III

Environmentally hazardous Applicable

Hazard Identification No. 90

14.3 ICAO/IATA-DGR

UN No. 3082

Proper shipping name Environmentally hazardous substance, liquid, n.o.s.(Cyflufenamid mixture)

Hazard Class 9

Packing Group III

Environmentally hazardous Applicable

14.4 Special precautions for use

None

15. REGULATORY INFORMATION

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

EU regulatory information

The product is regulated under the EU Directive(s) or Regulation(s) on plant protection products since it is one of plant protection products.

National regulatory information

Water Hazard Class (Germany): WGK 2

15.2 Chemical safety assessment

Chemical safety assessments for all substances in this mixture were not carried out.

16. OTHER INFORMATION

16.1 Added ,deleted or revised information

16.1.1 This safety data sheet is revised in accordance with Regulation (EC) No 1907/2006.

16.1.2 Added, deleted or revised information

Section 3: Chemical name for Cyflufenamid was amended slightly and EC No. was added.

Section 14: Minor amendments were done.

16.2 List of relevant hazard statements contained in Section 2 to 15 of this document (for information only)

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects

H411 Toxic to aquatic life with long lasting effects

EUH208 Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.

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