

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

Prepared: March 8, 2005

Version : 17 Revised: September 5, 2018

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Cyflufenamid 5%EW

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 Substance

Not applicable

3.2 Mixtures

CAS No.	EC No.	Index No./ REACH Registration No.	wt/wt %	Substance name	Classification according to Regulation (EC) No 1272/2008(CLP)
180409-60-3	605-896-2	— / —	5.0 (pure)	Cyflufenamid; (Z)-N-[α - -(cyclopropylmethoxyimino)-2,3-difluoro-6-(trifluorom ethyl)benzyl]-2-phenylacet amide	Aquatic Chronic 1; H410
—	922-153-0	— / —	18	Hydrocarbons, C10-C13, aromatics, <1% naphthalene	Asp.Tox.1; H304 EUH066 Aquatic Chronic 2; H411
68920-66-1	500-236-9	— /01-211948 9407-26- XXXX	10	Alcohols, C16-18 (even numbered, C18- unsaturated), ethoxylated	Skin Irrit. 2; H315 Aquatic Chronic 2; H411
99734-09-5	not applicable (polymer)	— / —	5	Poly(oxy-1,2-ethanediyl)-al pha-[tris(1-phenylethyl)phe nyl]-omega-hydroxy-	Aquatic Chronic 3; H412
90093-37-1	Not applicable (polymer)	— / —	1	Polyoxyethylene tristylylphenylether phosphate	Eye Irrit.2; H319
2634-33-5	220-120-9	613-088-00 -6 / —	<0.05	1,2-Benzisothiazole-3-(2H)- one	Acute Tox.4; H302 Skin Irrit.2; H315 Eye Dam.1; H318 Skin Sens.1; H317* Aquatic Acute 1; H400
—	—	—	Balance	Other ingredients	—

* Specific Conc. Limits and M factors: $C \geq 0.05\%$ 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, and wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

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

4.1.4 Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell.

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, foam or water spray.

Unsuitable extinguishing media : Not known

5.2 Special hazards arising from the substance or mixture

Thermal decomposition or combustion may produce carbon dioxide, carbon monoxide, hydrogen fluoride and nitrogen oxides.

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.

Keep away from all ignition sources. Avoid contact with skin, eyes and clothing.

Avoid breathing the mist or vapor.

6.2 Environmental precautions

Do not discharge treated water to river, sea, lake, waterway etc. directly without the authority's approval because this product is toxic to aquatic organisms.

6.3 Methods and material for containment and cleaning up

Obey local/national/international regulations for health & safety and environmental protection when accidental spills are treated.

(large quantities) Remove with vacuum truck.

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

(small quantities) Remove with inert absorbent (e.g. sand or vermiculite), and place in a closed containers and hold for waste disposal. Wash spill site with soap and plenty of water after material pick-up is complete.

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.

Keep out of reach of children.

Do not breathe mist or vapor.

Wash hands and face thoroughly after handling.

Avoid contact with skin, eyes and clothing.

Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Store in a cool, dry, well-ventilated place.

Avoid direct contact with water, acids or bases.

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 wear, gloves and boots.

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

Gloves material ; 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 vapour.

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	Off-white to pale yellow viscous liquid
Odour	Aromatic odor
Odour threshold	Not available
pH	Not available
Melting point/freezing point	-10~0°C (This product froze after storage at -10°C for 3 days.)
Initial boiling point and boiling range	103°C
Flash point	112°C (Cleaveland open cup)
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 (as active ingredient)
Vapor density (air=1)	Not available
Specific gravity (H ₂ O=1)	1.027 at 20°C
Solubility in water	Insoluble
Partition coefficient n-Octanol/water	log P _{o/w} = 4.70 at 25°C, pH6.75
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	3.7×10^{-5} m ² /sec at 40°C (see section 16)
Explosive properties	Not explosive
Oxidising properties	Not oxidising

9.2 Other information

Surface tension	31.9 mN/m at 25°C
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

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 oxidizing agents, strong acids or bases

10.6 Hazardous decomposition products

Carbon oxides, nitrogen oxides, methyl sulfide, sulfur dioxide, and hydrogen chloride.

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a)acute toxicity

Oral LD₅₀ (rat): > 5000mg/kg
Dermal LD₅₀ (rat): > 2000mg/kg
Inhalation LC₅₀ (rat): > 4.41 mg/L (4hr)(maximum practicable concentration)

(b)skin corrosion/irritation

Dermal (rabbit): Moderate to severe (Effects are well below threshold for classification.)

(c)serious eye damage/irritation

Eyes (rabbit): Very slight (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)

Teratogenicity

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 : 9.84 mg/L (96hr)

Acute Toxicity for Daphnia: EC₅₀ : 9.48 mg/L (48hr)

Acute Toxicity for Algae: ErC₅₀ : 1.628 mg/L (72hr)

Chronic Toxicity for Algae: NOEC 0.395 mg/L (72hr)

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 (Koc=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) No1907/2006, 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) Consult the appropriate local authorities about special requirement.

4) 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 assessment for Alcohols, C16-18 (even numbered, C18-unsaturated), ethoxylated was 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: The composition table was changed. Identification No. and classification for Alcohols, C16-18 (even numbered, C18-unsaturated), ethoxylated were changed. REACH Registration No. was added. The description for Anhydro-D-glucitol trioleate was omitted because the classification is 'Not classified'. Chemical name for Cyflufenamid was amended slightly and EC No. was added.

Section 14: Minor amendments were done.

Section 15: The description about Chemical safety assessment was changed.

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

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.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.
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

Remark

Regarding Hydrocarbons, C10-C13, aromatics, <1% naphthalene: Though this product contains 18% of Hydrocarbons, C10-C13, aromatics, <1% naphthalene, the viscosity of this product was more than $7 \times 10^{-6} \text{ m}^2/\text{s}$. Therefore H304 according to Regulation (EC) No 1272/2008 does not apply because the kinematic viscosity of the product is higher than $2 \times 10^{-5} \text{ m}^2/\text{s}$ at 40°C .
