

Product name: FYTOCLONE® RESIN

1. Identification of the Producer and the Marketing Company

- a. Production Plant: Aqua Resins Technologies BV
Nijverheidsweg 17
6651 KS Druten
The Netherlands
T:+31(0)487 593778 // F:+31(0)487594836
- b. Marketing Company: Resins Agro BV
Ambachtsweg 6
6657 CK boven Leeuwen
The Netherlands
T:+31(0)487 593778 // F:+31(0)487594836
- c. Distributor:

2. Composition.

- a. Chemical Name: Urea – Formaldehyde Resin in water
- b. Synonyms: UF Resin
- c. Chemical Family: Aminoplasts - Duroplasts
- d. Molecular Formula: $[-(\text{CH}_2\text{OH})_2\text{-N-CO-NH-CH}_2\text{OH-}]^n$

3. Hazards Information.

- Formaldehyde (EC No: 200-001-8) 0.8 – 0.9%
- a. T; R: 20/23/24/25
S: 26 & 51
- C; R: 34
- Carc. Cat; R: 40
- Xi; R: 43
- b. This water-based resin is non hazardous
- c. It has light irritation effect on eyes, skin and when inhaled

4. First Aid Measures.

- a. Skin Contact: Rinse immediately with water
- b. Eye Contact: Rinse immediately with water and ask for medical advise
- c. Inhalation: Leave area immediately to get fresh air

5. Fire Fighting Measures.

- a. Flammability: The water based resin is non flammable, does not ignite nor burn
- b. Suitable extinguishing Media: not applicable
- c. Unsuitable Extinguishing Media: not applicable
- d. Special Hazards: not applicable
- e. Protective Equipment: see 8

6. Accidental Release Measures.

- a. Personal Precautions: see 8
- b. Environmental precautions when released INDOORS:
First add absorption material (foam flakes/peat/sand/grit etc) remove the absorbed material, rinse immediately and abundantly with water within 15 minutes. Ventilate the room to evacuate vapours.
- c. Environmental precautions when released OUTDOORS:
First add absorption material (foam flakes/peat/sand/grit etc) remove the absorbed material, rinse immediately and abundantly with water within 15 minutes.
- d. Methods for cleaning: see above 6b Indoor / 6c Outdoor

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7. Handling and Storage.

- a. Handling: Operators must be trained to work with UF Resins/polymer operators must wear rubber gloves and safety goggles
Remove stained clothes and clean before re-use
- b. Storage: Store the resin between 5°C and 25°C to avoid polymerisation.
Keep storage container closed. Protect from direct sun light.
Store in ventilated area.
Prevent contact with acids and alkalis

8. Exposure Protection and Personal Protection.

- a. Exposure Protection: Keep storage container always closed
Ventilate storage area
- b. Personal Protection:
- i. Hand Protection: Operators must wear rubber gloves
 - ii. Eye Protection: Operators must wear safety goggles
 - iii. Skin Protection: Operators should wear an overall e.g.
 - iv. Other Protective Measures: Operators must be trained to work with UF Resins

Occupational Exposure Limits (EH40): Formaldehyde; **EEC Guidelines**
0,2 ppm – 8 hour TWA -MAXIMUM EXPOSURE LIMIT
0,4 ppm – 15 min.ref period – MAXIMUM EXPOSURE LIMIT

Occupational Exposure Limits (EH40): Formaldehyde; **UK Guidelines**
1 ppm – 8 hour TWA -MAXIMUM EXPOSURE LIMIT
2 ppm – 15 min.ref period – MAXIMUM EXPOSURE LIMIT

9. Physical and Chemical Properties.

- a. Appearance: Transparent, white syrupy liquid
- b. Odour: Light smell of formaldehyde
- c. UF Resin percentage: 63%
- d. pH: 7,0 – 7,5
- e. Boiling Point: 100 °C (approx)
- f. Flash Point: Not known
- g. Self ignition: Not known
- h. Flammability: Non flammable
- i. Explosive properties: None
- j. Oxidizing Properties: None
- k. Vapour Pressure: not applicable / non volatile acid
- l. Vapour Density: not applicable / non volatile acid
- m. Density: 1,16 kg/m³
- n. Solubility in water: Up to 100%
- o. Dynamic Viscosity (cP at 30°C): 17m Pa s

10. Stability and Reactivity.

The water based resin is stable and remains stable during at least 8 months after production, subject to proper storage and handling.
Storage outside of the range between 5°C and 25°C must be avoided because of polymerization a.o.
Direct Contact with H₂O₂ will result in degradation of the product.
Contact with hydrogen chloride (hydrochloric acid) which may, under certain conditions, lead to the formation of toxic and carcinogenic bischloromethyl ether (bis-CME).

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Hazardous Decomposition Products:

Thermal decomposition products may include formaldehyde, oxides of nitrogen and carbon monoxide.

11. Toxicological Information.

- | | |
|---------------------|-------------------------------|
| a. Carcinogenicity: | The resin is non carcinogenic |
| b. Eyes: | Slightly irritating |
| c. Skin: | Slightly irritating |
| d. Inhalation: | Slightly irritating |

Human Data:

Formaldehyde is irritating to the eyes, skin and respiratory tract, and many cause sensitisation. Formaldehyde has been classified as a Category 3 carcinogen. Category 3 substances are those which cause concern for man owing to possible carcinogen effects. Formaldehyde has been placed in the lowest category because, although it has been shown to cause cancer in rats, the large number of human studies has provided no convincing evidence that formaldehyde produces cancer in man. Current risk assessments show that if there is any risk at all, it must be small in absolute terms. Exposure to formaldehyde in the workplace should be reduced as far as is reasonably practicable and in any case, below the Maximum Exposure Limit 0,4 ppm. (EEC) and 2 ppm within the UK. Compliance with this requirement will virtually eliminate any carcinogenic risk that might have been present at higher levels of exposure.

12. Ecological Information

- | | |
|---------------------------|------|
| a. Environmental effects: | None |
| b. Eco toxicity: | None |
| c. Bio concentration: | None |

The product does not contain any substance that is classified under EC legalisation for environmental effects.

Formaldehyde
LC 96hr Rainbow trout 440 mg/litre
⁵⁰
BOD5 > 0.5 Readily biodegradable
COD

13. Disposal Considerations.

- | | |
|---------------------|--|
| a. Disposal Method: | Polymerisation with weak acid. Grinding and disposal in landfill |
|---------------------|--|

14. Transport Information.

- | | |
|---------------------------|----------------|
| a. Identification Number: | 39091000 |
| b. Transport Name: | UF Resin |
| c. ADR/RID: | Not applicable |
| d. IMO-IMDG code: | Not applicable |
| e. ICAO/IATA: | Not applicable |

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15. Regulatory Information.

a. R – sentences:

b. S – sentences:

EC labelling IRRITANT

R20 – Do not inhale emanations

R43 – Irritate skin, rinse immediately and abundantly with water

S26 – Irritate eyes, rinse eyes immediately and abundantly with water and require medical advise

S51 – Use in ventilated area's

S37 – Wear suitable gloves

16. Other Information.

For detailed information see manufacturer's specifications and manuals.

DISCLAIMER:

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