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Technical Data Sheet

WHC Silica Finings

Description

Silica sol in liquid form that can be used for clarifying and stabilising industrial and craft beer.

This product is a processing aid, not a food additive.

Usage

- Add 30–60 ml per hectoliter (hl) of cast wort or beer during processing to improve clarification and filterability.
 - For wort clarification in the brewhouse, use within this dosage range.
 - For beer stabilization during maturation or storage, apply 30–60 ml/hl based on initial haze levels.
 - For dry hopped beers where high clarification is needed, doses can be increased to 100–250 ml/hl.
 - Ensure thorough mixing to facilitate particle formation and sedimentation.
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- Designed specifically for beer clarification and stabilization.
 - Food grade processing aid compliant with international standards.
 - Does not alter sensory attributes of beer.

Remaining Residues

- Converts into insoluble silica hydrogel that sediments and is removed during clarification.
- Does not leave significant residues in the final product.
- No impact on beer flavor, foam, or color.

Ingredients Declaration

Water, distilled (65%)
CAS-No.: 7732-18-5

Silicon dioxide, chemically prepared (35%)
CAS-No.: 7631-86-9

Does not contain flavors, odors, or colorings.

Allergens

WHC Silica Finings does not contain added allergens.

*EU Regulation 1169/2011 (Food Information Regulations) (Annex II)

GM Status

This product is not produced by a microorganism nor is it a microorganism.

Manufacturing Process

- Produced as a highly adsorbent silica sol via controlled chemical processes.
- When added to wort or beer, it causes cross-linkages of silica particles forming a hydrogel.
- The hydrogel precipitates as insoluble silica, which sediments out, clarifying the beverage.
- The process ensures formation of a turbid, opalescent silica sol with a high specific surface area (~300 m²/g).

Technical Specifications

Visual Description	<i>Opalescent or turbid liquid</i>
Odor	<i>None</i>
Activity	<i>~ 30% Silica</i>
Optimum Temperature	<i>10°C to 30°C or 50°F to 86°F</i>
pH at 20°C or 68°F	<i>approx. 10.0</i>
Iron	<i>< 50 ppm</i>
Arsenic	<i>< 1 ppm</i>
Antimony	<i>< 1 ppm</i>
Lead	<i>< 1 ppm</i>
Copper	<i>< 1 ppm</i>
Zinc	<i>< 1 ppm</i>
Mercury	<i>0.01 ppm</i>
Cadmium	<i>0.1 ppm</i>

Analytical Assay Procedures

- Spectrophotometry for silica content.
- ICP-MS or atomic absorption for metal impurities.
- Viscosity and specific surface area measurements to confirm product consistency.

Packaging

WHC Silica Finings is available in 5 kg and 24 kg drums. These materials comply with relevant food-contact legislation, including, EU Regulation 1935/2004 (materials intended for contact with food), EU Regulation 1245/2020 (plastic materials intended for contact with food)), EU Regulation 2023/2006 (GMP for materials intended for contact with food), and FDA CFR 21 (174-179) (USA).

Storage and Handling

Storage Conditions:	It is recommended to keep product in its original unopened packaging in dry, cool, dark, and odor-free conditions (10°C to 30°C or 50°F to 86°F) to maintain maximum activity. Do not freeze. Ensure containers are sealed when not in use, store in a cool place, away from direct sunlight, to preserve its effectiveness. Shake and invert before use.
Shelf life:	As stated on the pack.
Handling:	<i>Silica sol products need to be handled with care. Please consult the separately available Safety Data Sheet for further information.</i>

If you have any questions or concerns about our product please contact us at lab@whclab.com