BarthHaas®

SPECTRUM

Safety Data Sheet

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

1.1. Product Identifier:	SPECTRUM
1.2. Relevant Uses:	For use as an ingredient in foods.
1.3. Supplier:	BARTH-HAAS Group / BARTH-HAAS UK
1.4. Emergency Contact Details:	Hop Pocket Lane, Paddock Wood, Kent, TN12 6DQ, UK Emergency phone: +44 1892 833 415 (09:00 – 17:30 Mon-Thurs; 09:00 – 16:30 Fri, UK time) Email: enquiries@barthhaas.co.uk

2. HAZARDS IDENTIFICATION

2.1. Classification:

According to Regulation (EC) 1272/2008 [CLP]:
Skin Irritation Category 2
Eye Irritation Category 2
Skin Sensitisation Category 1

2.2. Label Elements:

According to Regulation (EC) 1272/2008 [CLP]:

Hazard Pictogram:

Signal Word:
Warning

Hazard Statements:
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation

Precautionary Statements:
P280: Wear protective gloves and eye protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other Hazards: None.

3. COMPONENTS / INFORMATION ON INGREDIENTS

Hop Extracts, CAS: 8060-28-4,
EINECS No. 232-504-3

4. FIRST AID MEASURES

4.1.	**Description of First Aid Methods:**	Inhalation: Move to fresh air. Skin Contact: Wash skin thoroughly with soap and water. If any symptoms persist obtain medical attention. Eye Contact: Flood the eye with plenty of water. If any symptoms persist obtain medical attention. Oral Ingestion: Rinse mouth out with water and drink a portion of water (ca. 200ml). Vomiting may occur but should not be induced. Obtain medical attention if symptoms persist.
4.2.	**Most Important Symptoms and Effects:**	Skin and eye irritation
4.3.	**Indication of Immediate Medical Attention or Special Treatment:**	Action as indicated in Section 4.1. above

5. FIRE-FIGHTING MEASURES

5.1.	**Extinguishing media:**	Carbon dioxide, dry powder and foam.
5.2.	**Special Hazards Arising from Substance:**	Contains hop oil. Hop oil is combustible and may give rise to hazardous fumes in a fire.
5.3.	**Advice for Firefighters:**	Fire fighters should wear self-contained positive pressure breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Protection:	Wear appropriate protective clothing – see Section 8.
6.2. Environmental Precautions:	Avoid sub-soil penetration. Prevent entry to sewers and public waters. Do not discharge onto the ground or into watercourses.
6.3. Methods for Cleaning Up:	Contain spillage using earth, sand or other inert material. Transfer to suitable sealed container prior to disposal. Flush area with hot soapy water to remove final traces. Use adequate ventilation or a respirator if in a confined area.

7. PERSONAL PROTECTION

7.1. Precautions for Safe Handling:	Avoid excessive contact with product. Use appropriate protective clothing as indicated in Section 8. Wash hands after use.
7.2. Conditions for Safe Storage:	Store at 5 – 15 °C (41 – 59 °F). Suitable storage is high grade stainless steel, glass, high-density polyethylene, polypropylene and high phenolic lacquered mild steel.
7.3. Specific End Uses:	For use as a food ingredient. It should be used in accordance with applicable food legislation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control Parameters:	Not applicable.	
8.2. Exposure Controls:	Engineering Controls:	Provide adequate ventilation.
	Eye/Face Protection:	Chemical goggles must be worn during handling.
	Hand Protection:	PVC, rubber, latex or nitrile gloves.
	Skin Protection:	If danger of splashing wear PVC or rubber apron.
	Respiratory Protection:	Not normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Thick brown paste
Odour:	Hoppy, resinous
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	No data available
Flash Point:	ca. 80 °C (176 °F) or above, depending on variety
Evaporation Rate:	Not measured (substantial evaporation not expected at normal conditions)
Flammability:	Non flammable
Upper/Lower Flammability:	N/A
Vapour Pressure:	Not measured
Vapour Density:	Not measured
Density:	1.1 – 1.3 g/cm^3
Solubility in Water:	Readily dispersible
Partition Coefficient:	Not measured
Autoignition Temperature:	N/A
Decomposition Temperature:	No hazardous decomposition when used for its intended use.
Viscosity at 20 °C:	Approx. 5000 cP
Explosive properties:	Not explosive
Oxidising properties:	Not an oxidizing agent

10. STABILITY AND REACTIVITY

10.1. Reactivity:	No reactivity hazards known
10.2. Chemical Stability:	Stable under normal conditions, if stored in accordance with 7.2. and 10.5.
10.3. Possibility of Hazardous Reactions:	None known
10.4. Conditions to Avoid:	Keep container closed when not in use; avoid high temperatures.
10.5. Incompatible Materials:	None known
10.6. Hazardous Decomposition Products:	None known

11. TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects:

Hop Extract has a long history of safe use as a beer ingredient.

(a) Acute toxicity:
Typical hop extracts are not classified as hazardous. Estimated ATE values (oral, dermal) are >2000 mg/kg bw.

(b) Skin corrosion/irritation:
Skin Irritation Category 2.

(c) Serious eye damage/irritation:
Eye Irritation Category 2.

(d) Respiratory or skin sensitisation:
Skin Sensitisation Category 1.

(e) Germ cell mutagenicity:
OECD Guideline 471 (Bacterial Reverse Mutation Assay) not mutagenic. Bacterial Reverse Mutation Assay on 40% β-acids: not mutagenic.

(f) Carcinogenicity:
Long history of safe use as a component of beer. Bacterial reverse mutation assay: not mutagenic.

(g) Reproductive toxicity:
Weight of evidence indicates lack of reproductive toxicity. Long history of safe use as a component of beer. Hop extracts are generally recognised as safe (GRAS) in accordance with US FDA regulation 21 CFR 182.20.

(h) STOT-single exposure:
Weight of evidence indicates safety when used for its intended use – see (g) above.

(a) STOT-repeated exposure:
Weight of evidence indicates safety when used for its intended use – see (g) above.

(b) Aspiration hazard:
Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1. Toxicity:	Toxicity to fish: Carassius auratus (goldfish) – Etude pharmacologique de l'action du lupulin et de la fleur d'organer sur le poisson. Pharmaceutica acta Helvetiae (1953) 28(7-8), pp.183-206: lowest dose causing adverse effects estimated by calculation as ca. 80 mg/l. Toxicity to Daphnia and other aquatic invertebrates: EC50 – Daphnia magna (Water flea) – > 5.8 mg/l – 48 h. NOEC – Daphnia magna – ca. 2.2 mg/l – 48 h. Toxicity to freshwater algae: EC50 – 42.7 mg/l – 48 h. NOEC – 12.5 mg/l – 72 h.
12.2. Persistence and degradability:	Ultimate biodegradation (natural product).
12.3. Bioaccumulative potential:	Natural product, not expected to bioaccumulate.
12.4. Mobility in soil:	Log K_{OC} 1.7 – < 4.5 (modelling by EPISuite™) Other information: low hazardous to water Water contaminant class 1 (self assessment) according to VwVwS from May 17th 1999 appendix 3. Do not discharge onto the ground or into watercourses.
12.5. Results of PBT and vPvB assessment:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
12.6. Other adverse effects:	No data.

13. DISPOSAL CONSIDERATIONS

13.1. Product disposal:	Dispose in accordance with all applicable local and national regulations.
13.2. Container disposal:	Labels should not be removed from containers until they have been cleaned. Contaminated containers should not be treated as household waste. Containers should be cleaned using appropriate methods and then re-used or disposed of by landfill or incineration as appropriate.

14. TRANSPORT INFORMATION

14.1.	**UN-Number:**	Non-hazardous for transport
14.2.	**Class:**	Non-hazardous for transport
14.3.	**Shipping name:**	N/A
14.4.	**Packing group:**	Non-hazardous for transport
14.5.	**Marine pollutant:**	No data available

15. REGULATORY INFORMATION

15.1.	**Safety, Health and Environmental Regulations:**	For food use. Germany: Water contaminant class 1 (self assessment) according to VwVwS from May 17th 1999 appendix 3. Do not discharge onto the ground or into watercourses.
15.2.	**Chemical Safety Assessment:**	N/A – for food use.

16. OTHER INFORMATION

(a) Key literature references and sources for data:
REACH registration dossier for EC 232-504-3

(b) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:
Skin Irritation Category 2: in vitro test data for REACH registration dossier for EC 232-504-3
Eye Irritation Category 2: in vitro test data for REACH registration dossier for EC 232-504-3
Skin Sensitisation Category 1: in vitro test data for REACH registration dossier for EC 232-504-3

The information in this safety data sheet is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on our present knowledge and should be used only as a supplement to information already in your possession concerning this product. It does not represent any guarantee of the properties of the product. The determination of whether and under what condition the product should be used is yours to make. We do not accept any liability for loss, injury or damage that may result from its use.

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