

# Natural Addition Coconut

## Safety Data Sheet

### Note

Natural Addition Coconut is not classified as a dangerous product according to European Union legislation, and it is used as a flavouring for food, for example in the brewing of beer. However, this safety data sheet is provided voluntarily according (as appropriate) to the principles of the Classification, Labelling and Packaging Regulations (Regulation (EC) No. 1272/2008).

### 1. Identification of the Preparation and of the Company

1.1 Product Identifier:	<b>Natural Addition Coconut</b>
Other Names:	
1.2 Relevant Uses	To be used as a flavouring for foods and beverages. Not for direct consumption as an undiluted product.
1.3 Supplier:	<b>Barth-Haas UK Ltd</b>
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: intray@BarthHaas.co.uk

### 2. Hazards Identification

2.1 Classification:	Not classified (Regulation (EC) No. 1272/2008)
2.2 Label Elements:	N/A (not classified)
2.3 Other Hazards:	None

### 3. Components/Information on Ingredients

Contains flavourings in an aqueous propylene glycol carrier.

Component	Concentration of the component	CAS no.	EINECS no.	Hazard classification of the individual component
Propylene glycol (propan-1,2-diol)	95% w/w	57-55-6	200-338-0	Propylene glycol has a workplace exposure limit assigned. It is non-hazardous when used as directed. Propylene glycol is registered as a food additive in the European Union as E 1520.

4. First Aid Measures	
4.1 Description of First Aid Methods:	<p><u>Inhalation:</u> Move the exposed person to fresh air at once. Rinse nose and mouth with water. Obtain medical attention if discomfort continues.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water.</p> <p><u>Eye Contact:</u> Wash eye with plenty of water. Obtain medical attention if symptoms persist.</p> <p><u>Oral Ingestion:</u> Rinse mouth thoroughly provided person is conscious. Obtain medical attention if discomfort continues.</p>
4.2 Most Important Symptoms and Effects:	No data available. See Section 11.
4.3 Indication of Immediate Medical Attention or Special Treatment:	No data available.
5. Fire-Fighting Measures	
5.1 Extinguishing media:	Carbon dioxide, water spray, dry powder and alcohol-resistant foam.
5.2 Special Hazards Arising from Substance:	Propylene glycol will give rise to toxic fumes in 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:	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. Wash spillage site with water. Do not contaminate water sources or sewer.
7. Handling and Storage	
7.1 Precautions for Safe Handling:	Avoid spilling, skin and eye contact.
7.2 Conditions for Safe Storage:	Keep container closed when not in use. Keep away from heat and from sources of ignition. Suitable storage is high-grade stainless steel, glass, aluminium or lacquered steel drums. Store at 0-20 °C (32-68 °F).
7.3 Specific End Uses:	The substance is manufactured for use as a food ingredient and for such uses it is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation.

8. Exposure Controls / Personal Protection	
8.1 Control Parameters:	<p>Components of the preparation for which there are workplace exposure limits:</p> <ul style="list-style-type: none"> <li>Propylene glycol: UK: Long term exposure limit, measured as 8-hour time weighted average (TWA) (refs.1,3): 150 ppm (474 mg/m<sup>3</sup>) for total vapour and particulates; 10 mg/m<sup>3</sup> for particulates.</li> </ul> <p>Propylene glycol is present at 95 % w/w (see Section 3).</p>
8.2 Exposure Controls:	<p><u>Engineering Controls:</u> Provide adequate ventilation. Observe the workplace exposure limits and minimize the risk of inhalation of vapours.</p> <p><u>Eye/Face Protection:</u> If danger of splashing wear chemical goggles.</p> <p><u>Hand Protection:</u> Suitable protective gloves if risk of skin contact.</p> <p><u>Skin Protection:</u> If danger of splashing wear PVC or rubber apron.</p> <p><u>Respiratory Protection:</u> Not normally required.</p>
9. Physical and Chemical Properties	
Appearance:	Clear Liquid
Odour:	NA
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	No data available. Data for propylene glycol: >150 °C (302 °F)
Flash Point:	No data available. Product is in a carrier of aqueous propylene glycol which is not flammable.
Evaporation Rate:	No data available
Flammability:	Not flammable.
Upper/Lower Flammability:	No data available
Vapour Pressure:	No data available. Data for propylene glycol: <10 mbar at 20 °C
Vapour Density:	No data available
Density:	Aprox 1100 kg.m <sup>-3</sup>
Solubility in Water:	Soluble
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity at 20 °C:	No data available
Explosive properties:	No data available. Data for propylene glycol: Heat or flame may cause explosions.
Oxidising properties:	No data available

<b>10. Stability and Reactivity</b>	
10.1 Reactivity:	No reactivity hazards known
10.2 Chemical Stability:	Stable if stored in accordance with 7.2 and 10.5.
10.3 Possibility of Hazardous Reactions:	None known
10.4 Conditions to Avoid:	Avoid excessive heat for prolonged periods of time.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Fire creates carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).
<b>11. Toxicological Information</b>	
11.1 Acute Toxicity:	Not known. The product contains propylene glycol at 95% w/w as indicated in Section 3. Propylene glycol is registered as a food additive in the EU as E 1520. Toxicological data for propylene glycol: LD <sub>50</sub> oral rat, mouse 20, 22 g kg <sup>-1</sup> , respectively (1). Propylene glycol may cause local irritation of skin and mucuous membranes (1). Spray and vapour in the eyes may cause irritation and smarting (2).
11.2 Skin Corrosion/Irritation:	No data available
11.3 Serious Eye Damage/Irritation:	No data available
11.4 Respiratory or Skin Sensitisation:	No data available
11.5 Germ Cell Mutagenicity:	No data available
11.6 Carcinogenicity:	No data available
11.7 Reproductive Toxicity:	No data available
11.8 STOT-Single Exposure:	No data available
11.9 STOT-Repeated Exposure:	No data available
11.10 Aspiration Hazard:	Not hazardous

<b>12. Ecological Information</b>	
12.1 Toxicity:	No data available. The product contains propylene glycol at 95% w/w as indicated in Section 3. Propylene glycol is not regarded as dangerous for the environment (2). Data for propylene glycol: LC <sub>50</sub> (24 hr) goldfish >5000 mg l <sup>-1</sup> (1); EC <sub>50</sub> (24 and 48 hr) <i>Daphnia magna</i> >10 g l <sup>-1</sup> (1).
12.2 Persistence and Degradability:	No data available. Propylene glycol is biodegradable.
12.3 Bioaccumulative Potential:	No data available. The bioconcentration of propylene glycol has been estimated as <1 (1).
12.4 Mobility in Soil:	No data available. Miscible with water.
12.5 Results of PBT and vPvB Assessment:	No data available
12.6 Other Adverse Effects:	No data available
<b>13. Disposal Considerations</b>	
Product disposal:	Dispose in accordance with all applicable local and national regulations.
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.
<b>14. Transport Information</b>	
UN-Number:	Non-hazardous for transport
Class:	Non-hazardous for transport
Shipping name:	N/A
Packing group:	Non-hazardous for transport
Marine pollutant:	No data available
<b>15. Regulatory Information</b>	
15.1 Safety, Health and Environmental Regulations:	Not classified (Regulation (EC) No. 1272/2008) The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).
15.2 Chemical Safety Assessment:	No data available

## 16. Other Information

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.

References: (1) Dictionary of Substances and their Effects (DOSE), 3<sup>rd</sup> Electronic Edition, 2005 (Royal Society of Chemistry/.Knovel Corp.) (2) Supplier MSDS for propylene glycol. (3) EH40/2005 Workplace Exposure Limits, Health and Safety Executive, 2<sup>nd</sup> Edition 2011.

Date of issue: **14 April 2016**

# Natural Addition Coriander

## Safety Data Sheet

### Note

Natural Addition Coriander is not classified as a dangerous product according to European Union legislation, and it is used as a flavouring for food, for example in the brewing of beer. However, this safety data sheet is provided voluntarily according (as appropriate) to the principles of the Classification, Labelling and Packaging Regulations (Regulation (EC) No. 1272/2008).

### 1. Identification of the Preparation and of the Company

1.1 Product Identifier:	<b>Natural Addition Coriander</b>
Other Names:	
1.2 Relevant Uses	To be used as a flavouring for foods and beverages. Not for direct consumption as an undiluted product.
1.3 Supplier:	<b>Barth-Haas UK Ltd</b>
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: intray@BarthHaas.co.uk

### 2. Hazards Identification

2.1 Classification:	Not classified (Regulation (EC) No. 1272/2008)
2.2 Label Elements:	N/A (not classified)
2.3 Other Hazards:	None

### 3. Components/Information on Ingredients

Contains flavourings in an aqueous propylene glycol carrier.

Component	Concentration of the component	CAS no.	EINECS no.	Hazard classification of the individual component
Propylene glycol (propan-1,2-diol)	Approx. 80% w/w	57-55-6	200-338-0	Propylene glycol has a workplace exposure limit assigned. It is non-hazardous when used as directed. Propylene glycol is registered as a food additive in the European Union as E 1520.

4. First Aid Measures	
4.1 Description of First Aid Methods:	<p><u>Inhalation:</u> Move the exposed person to fresh air at once. Rinse nose and mouth with water. Obtain medical attention if discomfort continues.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water.</p> <p><u>Eye Contact:</u> Wash eye with plenty of water. Obtain medical attention if symptoms persist.</p> <p><u>Oral Ingestion:</u> Rinse mouth thoroughly provided person is conscious. Obtain medical attention if discomfort continues.</p>
4.2 Most Important Symptoms and Effects:	No data available. See Section 11.
4.3 Indication of Immediate Medical Attention or Special Treatment:	No data available.
5. Fire-Fighting Measures	
5.1 Extinguishing media:	Carbon dioxide, water spray, dry powder and alcohol-resistant foam.
5.2 Special Hazards Arising from Substance:	Propylene glycol will give rise to toxic fumes in 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:	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. Wash spillage site with water. Do not contaminate water sources or sewer.
7. Handling and Storage	
7.1 Precautions for Safe Handling:	Avoid spilling, skin and eye contact.
7.2 Conditions for Safe Storage:	Keep container closed when not in use. Keep away from heat and from sources of ignition. Suitable storage is high-grade stainless steel, glass, aluminium or lacquered steel drums. Store at 0-20 °C (32-68 °F).
7.3 Specific End Uses:	The substance is manufactured for use as a food ingredient and for such uses it is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation.



8. Exposure Controls / Personal Protection	
8.1 Control Parameters:	<p>Components of the preparation for which there are workplace exposure limits:</p> <ul style="list-style-type: none"> <li>Propylene glycol: UK: Long term exposure limit, measured as 8-hour time weighted average (TWA) (refs.1,3): 150 ppm (474 mg/m<sup>3</sup>) for total vapour and particulates; 10 mg/m<sup>3</sup> for particulates.</li> </ul> <p>Propylene glycol is present at ca. 80% w/w (see Section 3).</p>
8.2 Exposure Controls:	<p><u>Engineering Controls:</u> Provide adequate ventilation. Observe the workplace exposure limits and minimize the risk of inhalation of vapours.</p> <p><u>Eye/Face Protection:</u> If danger of splashing wear chemical goggles.</p> <p><u>Hand Protection:</u> Suitable protective gloves if risk of skin contact.</p> <p><u>Skin Protection:</u> If danger of splashing wear PVC or rubber apron.</p> <p><u>Respiratory Protection:</u> Not normally required.</p>
9. Physical and Chemical Properties	
Appearance:	Transparent colourless liquid
Odour:	Herbal/ coriander
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	No data available. Data for propylene glycol: >150 °C (302 °F)
Flash Point:	No data available. Product is in a carrier of aqueous propylene glycol which is not flammable.
Evaporation Rate:	No data available
Flammability:	Not flammable.
Upper/Lower Flammability:	No data available
Vapour Pressure:	No data available. Data for propylene glycol: <10 mbar at 20 °C
Vapour Density:	No data available
Density:	0.750-1.350 kg.m <sup>-3</sup>
Solubility in Water:	Soluble
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity at 20 °C:	No data available
Explosive properties:	No data available. Data for propylene glycol: Heat or flame may cause explosions.
Oxidising properties:	No data available

<b>10. Stability and Reactivity</b>	
10.1 Reactivity:	No reactivity hazards known
10.2 Chemical Stability:	Stable if stored in accordance with 7.2 and 10.5.
10.3 Possibility of Hazardous Reactions:	None known
10.4 Conditions to Avoid:	Avoid excessive heat for prolonged periods of time.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Fire creates carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).
<b>11. Toxicological Information</b>	
11.1 Acute Toxicity:	Not known. The product contains propylene glycol at ca. 80% w/w as indicated in Section 3. Propylene glycol is registered as a food additive in the EU as E 1520. Toxicological data for propylene glycol: LD <sub>50</sub> oral rat, mouse 20, 22 g kg <sup>-1</sup> , respectively (1). Propylene glycol may cause local irritation of skin and mucuous membranes (1). Spray and vapour in the eyes may cause irritation and smarting (2).
11.2 Skin Corrosion/Irritation:	No data available
11.3 Serious Eye Damage/Irritation:	No data available
11.4 Respiratory or Skin Sensitisation:	No data available
11.5 Germ Cell Mutagenicity:	No data available
11.6 Carcinogenicity:	No data available
11.7 Reproductive Toxicity:	No data available
11.8 STOT-Single Exposure:	No data available
11.9 STOT-Repeated Exposure:	No data available
11.10 Aspiration Hazard:	Not hazardous

<b>12. Ecological Information</b>	
12.1 Toxicity:	No data available. The product contains propylene glycol at ca. 80% w/w as indicated in Section 3. Propylene glycol is not regarded as dangerous for the environment (2). Data for propylene glycol: LC <sub>50</sub> (24 hr) goldfish >5000 mg l <sup>-1</sup> (1); EC <sub>50</sub> (24 and 48 hr) <i>Daphnia magna</i> >10 g l <sup>-1</sup> (1).
12.2 Persistence and Degradability:	No data available. Propylene glycol is biodegradable.
12.3 Bioaccumulative Potential:	No data available. The bioconcentration of propylene glycol has been estimated as <1 (1).
12.4 Mobility in Soil:	No data available. Miscible with water.
12.5 Results of PBT and vPvB Assessment:	No data available
12.6 Other Adverse Effects:	No data available
<b>13. Disposal Considerations</b>	
Product disposal:	Dispose in accordance with all applicable local and national regulations.
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.
<b>14. Transport Information</b>	
UN-Number:	Non-hazardous for transport
Class:	Non-hazardous for transport
Shipping name:	N/A
Packing group:	Non-hazardous for transport
Marine pollutant:	No data available
<b>15. Regulatory Information</b>	
15.1 Safety, Health and Environmental Regulations:	Not classified (Regulation (EC) No. 1272/2008) The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).
15.2 Chemical Safety Assessment:	No data available

## 16. Other Information


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.

References: (1) Dictionary of Substances and their Effects (DOSE), 3<sup>rd</sup> Electronic Edition, 2005 (Royal Society of Chemistry/.Knovel Corp.) (2) Supplier MSDS for propylene glycol. (3) EH40/2005 Workplace Exposure Limits, Health and Safety Executive, 2<sup>nd</sup> Edition 2011.

Date of issue: 22 March 2016

# Natural Addition Grapefruit

## Safety Data Sheet

1. Identification of the Preparation and of the Company	
1.1 Product Identifier:	<b>Natural Addition Grapefruit</b>
Other Names:	
1.2 Relevant Uses	To be used as a flavouring for foods and beverages. Not for direct consumption as an undiluted product.
1.3 Supplier: 1.4 Emergency Contact Details:	<b>Barth-Haas UK Ltd</b> 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: intray@BarthHaas.co.uk
2. Hazards Identification	
2.1 Classification according to Regulation (EC) 1272/2008:	Skin irritation (Category 2), H315 Serious eye damage (Category 1), H318
2.2 Label Elements:	<p>Pictogram</p>  <p>Signal word: Danger</p> <p>Hazard statements: H315 Causes skin irritation. H318 Causes serious eye damage.</p> <p>Precautionary statements: P264 Wash hands thoroughly after handling P280 Wear protective gloves / 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. P332 + P313 If skin irritation occurs: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it before reuse.</p>
2.3 Other Hazards:	None

<b>3. Components/Information on Ingredients</b>				
<b>Component</b>	<b>Concentration of the component</b>	<b>CAS no.</b>	<b>EINECS no.</b>	<b>Hazard classification of the individual component</b>
Propylene glycol (propan-1,2-diol)	Approx. 84% w/w	57-55-6	200-338-0	Propylene glycol has a workplace exposure limit assigned. It is non-hazardous when used as directed. Propylene glycol is registered as a food additive in the European Union as E 1520.
Grapefruit oil	12% w/w	8016-20-4		Flammable liquid (Cat. 3). Skin irritation (Cat. 2). Eye irritation (Cat. 2). STOT – single exposure (may cause respiratory irritation) (Cat. 3).
Lactic acid	4% w/w	50-21-5	200-018-0	Skin irritation (Cat. 2). Serious eye damage (Cat. 1).
<b>4. First Aid Measures</b>				
4.1 Description of First Aid Methods:	<p><u>Inhalation</u>: Move the exposed person to fresh air at once. If not breathing give artificial respiration. Obtain medical attention if discomfort continues.</p> <p><u>Skin Contact</u>: Wash skin thoroughly with soap and water.</p> <p><u>Eye Contact</u>: Wash eye with plenty of water for at least 15 minutes and consult a physician.</p> <p><u>Oral Ingestion</u>: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly provided person is conscious. Consult a physician.</p>			
4.2 Most Important Symptoms and Effects:	See labelling (Section 2.2) and Section 11.			
4.3 Indication of Immediate Medical Attention or Special Treatment:	No data available.			
<b>5. Fire-Fighting Measures</b>				
5.1 Extinguishing media:	Carbon dioxide, water spray, dry powder and alcohol-resistant foam.			
5.2 Special Hazards Arising from Substance:	Propylene glycol will give rise to toxic fumes in fire.			
5.3 Advice for Firefighters:	Fire fighters should wear self-contained positive pressure breathing apparatus.			

<b>6. Accidental Release Measures</b>	
6.1 Personal Protection:	Wear appropriate protective clothing – see Section 8.
6.2 Environmental Precautions:	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. Wash spillage site with water. Do not contaminate water sources or sewer.
<b>7. Handling and Storage</b>	
7.1 Precautions for Safe Handling:	Avoid spilling, skin and eye contact. For precautions see Section 2.2
7.2 Conditions for Safe Storage:	Keep container closed when not in use. Keep away from heat and from sources of ignition. Suitable storage is high-grade stainless steel, glass, aluminium or lacquered steel drums. Store at 0-20 °C (32-68 °F).
7.3 Specific End Uses:	The substance is manufactured for use as a food ingredient and for such use it is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation.
<b>8. Exposure Controls / Personal Protection</b>	
8.1 Control Parameters:	Components of the preparation for which there are workplace exposure limits: <ul style="list-style-type: none"> <li>Propylene glycol: UK: Long term exposure limit, measured as 8-hour time weighted average (TWA) (refs.1,3): 150 ppm (474 mg/m<sup>3</sup>) for total vapour and particulates; 10 mg/m<sup>3</sup> for particulates.</li> </ul> Propylene glycol is present atca. 84% w/w (see Section 3).
8.2 Exposure Controls:	<u>Engineering Controls:</u> Provide adequate ventilation. Observe the workplace exposure limits and minimize the risk of inhalation of vapours. <u>Eye/Face Protection:</u> Tight fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards. <u>Hand Protection:</u> Handle with gloves. <u>Skin Protection:</u> Handle with gloves. If danger of splashing wear PVC or rubber apron. <u>Respiratory Protection:</u> Not normally required.
<b>9. Physical and Chemical Properties</b>	
Appearance:	Yellow opaque liquid
Odour:	Pink Grapefruit
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available

Boiling Point:	No data available. Data for propylene glycol:>150 °C (302 °F)
Flash Point:	No data available. Product is in a carrier of aqueous propylene glycol which is not flammable.
Evaporation Rate:	No data available
Flammability:	Not flammable.
Upper/Lower Flammability:	No data available
Vapour Pressure:	No data available. Data for propylene glycol: <10 mbar at 20 °C
Vapour Density:	No data available
Density:	0.720-1.330kg.m <sup>-3</sup>
Solubility in Water:	Soluble
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity at 20 °C:	No data available
Explosive properties:	No data available. Data for propylene glycol: Heat or flame may cause explosions.
Oxidising properties:	No data available
<b>10. Stability and Reactivity</b>	
10.1 Reactivity:	No reactivity hazards known
10.2 Chemical Stability:	Stable if stored in accordance with 7.2 and 10.5.
10.3 Possibility of Hazardous Reactions:	None known
10.4 Conditions to Avoid:	Avoid excessive heat for prolonged periods of time.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Fire creates carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).
<b>11. Toxicological Information</b>	
11.1 Acute Toxicity:	No data available
11.2 Skin Corrosion/Irritation:	No data available. Contains components that are classified as causing skin irritation – see Section 3.
11.3 Serious Eye Damage/Irritation:	No data available. Contains components that are classified as causing serious eye damage and eye irritation – see Section 3.
11.4 Respiratory or Skin Sensitisation:	No data available.



11.5 Germ Cell Mutagenicity:	No data available
11.6 Carcinogenicity:	No data available
11.7 Reproductive Toxicity:	No data available
11.8 STOT-Single Exposure:	No data available. Contains components that are classified as possibly respiratory irritation: STOT – single exposure (Cat. 3) – see Section 3.
11.9 STOT-Repeated Exposure:	No data available
11.10 Aspiration Hazard:	No data available

## 12. Ecological Information

12.1 Toxicity:	No data available. The product contains propylene glycol at ca. 84% w/w as indicated in Section 3. Propylene glycol is not regarded as dangerous for the environment (2). Data for propylene glycol: LC <sub>50</sub> (24 hr) goldfish >5000 mg l <sup>-1</sup> (1); EC <sub>50</sub> (24 and 48 hr) <i>Daphnia magna</i> >10 g l <sup>-1</sup> (1).
12.2 Persistence and Degradability:	No data available. Propylene glycol is biodegradable.
12.3 Bioaccumulative Potential:	No data available. The bioconcentration of propylene glycol has been estimated as <1 (1).
12.4 Mobility in Soil:	No data available.
12.5 Results of PBT and vPvB Assessment:	No data available
12.6 Other Adverse Effects:	No data available

## 13. Disposal Considerations

Product disposal:	Dispose in accordance with all applicable local and national regulations.
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

UN-Number:	Non-hazardous for transport
Class:	Non-hazardous for transport
Shipping name:	N/A
Packing group:	Non-hazardous for transport
Marine pollutant:	No data available

### 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations:	Not classified (Regulation (EC) No. 1272/2008) The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).
15.2 Chemical Safety Assessment:	No data available

### 16. Other Information

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.

References: (1) Dictionary of Substances and their Effects (DOSE), 3<sup>rd</sup> Electronic Edition, 2005 (Royal Society of Chemistry/.Knovel Corp.) (2) Supplier SDS for propylene glycol. (3) EH40/2005 Workplace Exposure Limits, Health and Safety Executive, 2<sup>nd</sup> Edition 2011.

General references for background: supplier SDS for grapefruit oil and for lactic acid.

Date of issue: **23 March 2016**

# Natural Addition Honey

## Safety Data Sheet

### Note

Natural Addition Honey is not classified as a dangerous product according to European Union legislation, and it is used as a flavouring for food, for example in the brewing of beer. However, this safety data sheet is provided voluntarily according (as appropriate) to the principles of the Classification, Labelling and Packaging Regulations (Regulation (EC) No. 1272/2008).

### 1. Identification of the Preparation and of the Company

1.1 Product Identifier:	<b>Natural Addition Honey</b>
Other Names:	
1.2 Relevant Uses	To be used as a flavouring for foods and beverages. Not for direct consumption as an undiluted product.
1.3 Supplier:	<b>Barth-Haas UK Ltd</b>
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: intray@BarthHaas.co.uk

### 2. Hazards Identification

2.1 Classification:	Not classified (Regulation (EC) No. 1272/2008)
2.2 Label Elements:	N/A (not classified)
2.3 Other Hazards:	None

### 3. Components/Information on Ingredients

Contains flavourings in an aqueous propylene glycol carrier.

Component	Concentration of the component	CAS no.	EINECS no.	Hazard classification of the individual component
Propylene glycol (propan-1,2-diol)	Approx. 82% w/w	57-55-6	200-338-0	Propylene glycol has a workplace exposure limit assigned. It is non-hazardous when used as directed. Propylene glycol is registered as a food additive in the European Union as E 1520.

4. First Aid Measures	
4.1 Description of First Aid Methods:	<p><u>Inhalation:</u> Move the exposed person to fresh air at once. Rinse nose and mouth with water. Obtain medical attention if discomfort continues.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water.</p> <p><u>Eye Contact:</u> Wash eye with plenty of water. Obtain medical attention if symptoms persist.</p> <p><u>Oral Ingestion:</u> Rinse mouth thoroughly provided person is conscious. Obtain medical attention if discomfort continues.</p>
4.2 Most Important Symptoms and Effects:	No data available. See Section 11.
4.3 Indication of Immediate Medical Attention or Special Treatment:	No data available.
5. Fire-Fighting Measures	
5.1 Extinguishing media:	Carbon dioxide, water spray, dry powder and alcohol-resistant foam.
5.2 Special Hazards Arising from Substance:	Propylene glycol will give rise to toxic fumes in 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:	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. Wash spillage site with water. Do not contaminate water sources or sewer.
7. Handling and Storage	
7.1 Precautions for Safe Handling:	Avoid spilling, skin and eye contact.
7.2 Conditions for Safe Storage:	Keep container closed when not in use. Keep away from heat and from sources of ignition. Suitable storage is high-grade stainless steel, glass, aluminium or lacquered steel drums. Store at 0-20 °C (32-68 °F).
7.3 Specific End Uses:	The substance is manufactured for use as a food ingredient and for such uses it is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation.

8. Exposure Controls / Personal Protection	
8.1 Control Parameters:	<p>Components of the preparation for which there are workplace exposure limits:</p> <ul style="list-style-type: none"> <li>Propylene glycol: UK: Long term exposure limit, measured as 8-hour time weighted average (TWA) (refs.1,3): 150 ppm (474 mg/m<sup>3</sup>) for total vapour and particulates; 10 mg/m<sup>3</sup> for particulates.</li> </ul> <p>Propylene glycol is present at ca. 82% w/w (see Section 3).</p>
8.2 Exposure Controls:	<p><u>Engineering Controls:</u> Provide adequate ventilation. Observe the workplace exposure limits and minimize the risk of inhalation of vapours.</p> <p><u>Eye/Face Protection:</u> If danger of splashing wear chemical goggles.</p> <p><u>Hand Protection:</u> Suitable protective gloves if risk of skin contact.</p> <p><u>Skin Protection:</u> If danger of splashing wear PVC or rubber apron.</p> <p><u>Respiratory Protection:</u> Not normally required.</p>
9. Physical and Chemical Properties	
Appearance:	Colourless liquid with a slight haze
Odour:	Honey with rose-like floral notes when taste trialled in a non-hoppy style lager
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	No data available. Data for propylene glycol: >150 °C (302 °F)
Flash Point:	No data available. Product is in a carrier of aqueous propylene glycol which is not flammable.
Evaporation Rate:	No data available
Flammability:	Not flammable.
Upper/Lower Flammability:	No data available
Vapour Pressure:	No data available. Data for propylene glycol: <10 mbar at 20 °C
Vapour Density:	No data available
Density:	0.720-1.300 kg.m <sup>-3</sup>
Solubility in Water:	Soluble
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity at 20 °C:	No data available
Explosive properties:	No data available. Data for propylene glycol: Heat or flame may cause explosions.

Oxidising properties:	No data available
<b>10. Stability and Reactivity</b>	
10.1 Reactivity:	No reactivity hazards known
10.2 Chemical Stability:	Stable if stored in accordance with 7.2 and 10.5.
10.3 Possibility of Hazardous Reactions:	None known
10.4 Conditions to Avoid:	Avoid excessive heat for prolonged periods of time.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Fire creates carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).
<b>11. Toxicological Information</b>	
11.1 Acute Toxicity:	Not known. The product contains propylene glycol at ca. 82% w/w as indicated in Section 3. Propylene glycol is registered as a food additive in the EU as E 1520. Toxicological data for propylene glycol: LD <sub>50</sub> oral rat, mouse 20, 22 g kg <sup>-1</sup> , respectively (1). Propylene glycol may cause local irritation of skin and mucuous membranes (1). Spray and vapour in the eyes may cause irritation and smarting (2).
11.2 Skin Corrosion/Irritation:	No data available
11.3 Serious Eye Damage/Irritation:	No data available
11.4 Respiratory or Skin Sensitisation:	No data available
11.5 Germ Cell Mutagenicity:	No data available
11.6 Carcinogenicity:	No data available
11.7 Reproductive Toxicity:	No data available
11.8 STOT-Single Exposure:	No data available
11.9 STOT-Repeated Exposure:	No data available
11.10 Aspiration Hazard:	Not hazardous

<b>12. Ecological Information</b>	
12.1 Toxicity:	No data available. The product contains propylene glycol at ca. 82% w/w as indicated in Section 3. Propylene glycol is not regarded as dangerous for the environment (2). Data for propylene glycol: LC <sub>50</sub> (24 hr) goldfish >5000 mg l <sup>-1</sup> (1); EC <sub>50</sub> (24 and 48 hr) <i>Daphnia magna</i> >10 g l <sup>-1</sup> (1).
12.2 Persistence and Degradability:	No data available. Propylene glycol is biodegradable.
12.3 Bioaccumulative Potential:	No data available. The bioconcentration of propylene glycol has been estimated as <1 (1).
12.4 Mobility in Soil:	No data available. Miscible with water.
12.5 Results of PBT and vPvB Assessment:	No data available
12.6 Other Adverse Effects:	No data available
<b>13. Disposal Considerations</b>	
Product disposal:	Dispose in accordance with all applicable local and national regulations.
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.
<b>14. Transport Information</b>	
UN-Number:	Non-hazardous for transport
Class:	Non-hazardous for transport
Shipping name:	N/A
Packing group:	Non-hazardous for transport
Marine pollutant:	No data available
<b>15. Regulatory Information</b>	
15.1 Safety, Health and Environmental Regulations:	Not classified (Regulation (EC) No. 1272/2008) The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).
15.2 Chemical Safety Assessment:	No data available

## 16. Other Information

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.

References: (1) Dictionary of Substances and their Effects (DOSE), 3<sup>rd</sup> Electronic Edition, 2005 (Royal Society of Chemistry/.Knovel Corp.) (2) Supplier MSDS for propylene glycol. (3) EH40/2005 Workplace Exposure Limits, Health and Safety Executive, 2<sup>nd</sup> Edition 2011.

Date of issue: **30 March 2016**

Revision: **14 July 2016** (updated formulation)



# Natural Addition Smoke

## Safety Data Sheet

### Note

Natural Addition Smoke is not classified as a dangerous product according to European Union legislation, and it is used as a flavouring for food, for example in the brewing of beer. However, this safety data sheet is provided voluntarily according (as appropriate) to the principles of the Classification, Labelling and Packaging Regulations (Regulation (EC) No. 1272/2008).

### 1. Identification of the Preparation and of the Company

1.1 Product Identifier:	<b>Natural Addition Smoke</b>
Other Names:	NA
1.2 Relevant Uses	To be used as a flavouring for foods and beverages. Not for direct consumption as an undiluted product.
1.3 Supplier:	<b>Barth-Haas UK Ltd</b>
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: intray@BarthHaas.co.uk

### 2. Hazards Identification

2.1 Classification:	Not classified (Regulation (EC) No. 1272/2008)
2.2 Label Elements:	N/A (not classified)
2.3 Other Hazards:	None

### 3. Components/Information on Ingredients

Contains flavourings in an aqueous propylene glycol carrier.

Component	Concentration of the component	CAS no.	EINECS no.	Hazard classification of the individual component
Propylene glycol (propan-1,2-diol)	Approx. 80% w/w	57-55-6	200-338-0	Propylene glycol has a workplace exposure limit assigned. It is non-hazardous when used as directed. Propylene glycol is registered as a food additive in the European Union as E 1520.

<b>4. First Aid Measures</b>	
4.1 Description of First Aid Methods:	<p><u>Inhalation:</u> Move the exposed person to fresh air at once. Rinse nose and mouth with water. Obtain medical attention if discomfort continues.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water.</p> <p><u>Eye Contact:</u> Wash eye with plenty of water. Obtain medical attention if symptoms persist.</p> <p><u>Oral Ingestion:</u> Rinse mouth thoroughly provided person is conscious. Obtain medical attention if discomfort continues.</p>
4.2 Most Important Symptoms and Effects:	No data available. See Section 11.
4.3 Indication of Immediate Medical Attention or Special Treatment:	No data available.
<b>5. Fire-Fighting Measures</b>	
5.1 Extinguishing media:	Carbon dioxide, water spray, dry powder and alcohol-resistant foam.
5.2 Special Hazards Arising from Substance:	Propylene glycol will give rise to toxic fumes in fire.
5.3 Advice for Firefighters:	Fire fighters should wear self-contained positive pressure breathing apparatus.
<b>6. Accidental Release Measures</b>	
6.1 Personal Protection:	Wear appropriate protective clothing – see Section 8.
6.2 Environmental Precautions:	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. Wash spillage site with water. Do not contaminate water sources or sewer.
<b>7. Handling and Storage</b>	
7.1 Precautions for Safe Handling:	Avoid spilling, skin and eye contact.
7.2 Conditions for Safe Storage:	Keep container closed when not in use. Keep away from heat and from sources of ignition. Suitable storage is high-grade stainless steel, glass, aluminium or lacquered steel drums. Store at 0-20 °C (32-68 °F).
7.3 Specific End Uses:	The substance is manufactured for use as a food ingredient and for such uses it is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation.

8. Exposure Controls / Personal Protection	
8.1 Control Parameters:	<p>Components of the preparation for which there are workplace exposure limits:</p> <ul style="list-style-type: none"> <li>Propylene glycol: UK: Long term exposure limit, measured as 8-hour time weighted average (TWA) (refs.1,3): 150 ppm (474 mg/m<sup>3</sup>) for total vapour and particulates; 10 mg/m<sup>3</sup> for particulates.</li> </ul> <p>Propylene glycol is present at ca. 80% w/w (see Section 3).</p>
8.2 Exposure Controls:	<p><u>Engineering Controls:</u> Provide adequate ventilation. Observe the workplace exposure limits and minimize the risk of inhalation of vapours.</p> <p><u>Eye/Face Protection:</u> If danger of splashing wear chemical goggles.</p> <p><u>Hand Protection:</u> Suitable protective gloves if risk of skin contact.</p> <p><u>Skin Protection:</u> If danger of splashing wear PVC or rubber apron.</p> <p><u>Respiratory Protection:</u> Not normally required.</p>
9. Physical and Chemical Properties	
Appearance:	NA
Odour:	Smoke flavor like
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	No data available. Data for propylene glycol: >150 °C (302 °F)
Flash Point:	No data available. Product is in a carrier of aqueous propylene glycol which is not flammable.
Evaporation Rate:	No data available
Flammability:	Not flammable.
Upper/Lower Flammability:	No data available
Vapour Pressure:	No data available. Data for propylene glycol: <10 mbar at 20 °C
Vapour Density:	No data available
Density:	1100 kg.m <sup>-3</sup>
Solubility in Water:	Soluble
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity at 20 °C:	No data available
Explosive properties:	No data available. Data for propylene glycol: Heat or flame may cause explosions.
Oxidising properties:	No data available

<b>10. Stability and Reactivity</b>	
10.1 Reactivity:	No reactivity hazards known
10.2 Chemical Stability:	Stable if stored in accordance with 7.2 and 10.5.
10.3 Possibility of Hazardous Reactions:	None known
10.4 Conditions to Avoid:	Avoid excessive heat for prolonged periods of time.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Fire creates carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).
<b>11. Toxicological Information</b>	
11.1 Acute Toxicity:	Not known. The product contains propylene glycol at ca. 80% w/w as indicated in Section 3. Propylene glycol is registered as a food additive in the EU as E 1520. Toxicological data for propylene glycol: LD <sub>50</sub> oral rat, mouse 20, 22 g kg <sup>-1</sup> , respectively (1). Propylene glycol may cause local irritation of skin and mucuous membranes (1). Spray and vapour in the eyes may cause irritation and smarting (2).
11.2 Skin Corrosion/Irritation:	No data available
11.3 Serious Eye Damage/Irritation:	No data available
11.4 Respiratory or Skin Sensitization:	No data available
11.5 Germ Cell Mutagenicity:	No data available
11.6 Carcinogenicity:	No data available
11.7 Reproductive Toxicity:	No data available
11.8 STOT-Single Exposure:	No data available
11.9 STOT-Repeated Exposure:	No data available
11.10 Aspiration Hazard:	Not hazardous

<b>12. Ecological Information</b>	
12.1 Toxicity:	No data available. The product contains propylene glycol at ca. 80% w/w as indicated in Section 3. Propylene glycol is not regarded as dangerous for the environment (2). Data for propylene glycol: LC <sub>50</sub> (24 hr) goldfish >5000 mg l <sup>-1</sup> (1); EC <sub>50</sub> (24 and 48 hr) <i>Daphnia magna</i> >10 g l <sup>-1</sup> (1).
12.2 Persistence and Degradability:	No data available. Propylene glycol is biodegradable.
12.3 Bioaccumulative Potential:	No data available. The bioconcentration of propylene glycol has been estimated as <1 (1).
12.4 Mobility in Soil:	No data available. Miscible with water.
12.5 Results of PBT and vPvB Assessment:	No data available
12.6 Other Adverse Effects:	No data available
<b>13. Disposal Considerations</b>	
Product disposal:	Dispose in accordance with all applicable local and national regulations.
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.
<b>14. Transport Information</b>	
UN-Number:	Non-hazardous for transport
Class:	Non-hazardous for transport
Shipping name:	N/A
Packing group:	Non-hazardous for transport
Marine pollutant:	No data available
<b>15. Regulatory Information</b>	
15.1 Safety, Health and Environmental Regulations:	Not classified (Regulation (EC) No. 1272/2008) The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).
15.2 Chemical Safety Assessment:	No data available

## 16. Other Information

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.

References: (1) Dictionary of Substances and their Effects (DOSE), 3<sup>rd</sup> Electronic Edition, 2005 (Royal Society of Chemistry/.Knovel Corp.) (2) Supplier MSDS for propylene glycol. (3) EH40/2005 Workplace Exposure Limits, Health and Safety Executive, 2<sup>nd</sup> Edition 2011.

Date of issue: 30 March 2016

# Natural Addition Tangerine

## Safety Data Sheet

### Note

Natural Addition Tangerine is not classified as a dangerous product according to European Union legislation, and it is used as a flavoring for food, for example in the brewing of beer. However, this safety data sheet is provided voluntarily according (as appropriate) to the principles of the Classification, Labelling and Packaging Regulations (Regulation (EC) No. 1272/2008).

### 1. Identification of the Preparation and of the Company

1.1 Product Identifier:	<b>Natural Addition Tangerine</b>
Other Names:	
1.2 Relevant Uses	To be used as a flavouring for foods and beverages. Not for direct consumption as an undiluted product.
1.3 Supplier:	<b>Barth-Haas UK Ltd</b>
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: intray@BarthHaas.co.uk

### 2. Hazards Identification

2.1 Classification:	Not classified (Regulation (EC) No. 1272/2008)
2.2 Label Elements:	N/A (not classified)
2.3 Other Hazards:	EUH208 Contains citral and lemon oil. May produce an allergic reaction.

### 3. Components/Information on Ingredients

Contains flavourings in an aqueous propylene glycol carrier.

Component	Concentration of the component	CAS no.	EINECS no.	Hazard classification of the individual component
Propylene glycol (propan-1,2-diol)	Approx. 59% w/w	57-55-6	200-338-0	Propylene glycol has a workplace exposure limit assigned. It is non-hazardous when used as directed. Propylene glycol is registered as a food additive in the European Union as E 1520.

4. First Aid Measures	
4.1 Description of First Aid Methods:	<p><u>Inhalation:</u> Move the exposed person to fresh air at once. Rinse nose and mouth with water. Obtain medical attention if discomfort continues.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water.</p> <p><u>Eye Contact:</u> Wash eye with plenty of water. Obtain medical attention if symptoms persist.</p> <p><u>Oral Ingestion:</u> Rinse mouth thoroughly provided person is conscious. Obtain medical attention if discomfort continues.</p>
4.2 Most Important Symptoms and Effects:	See Section 11. Contains citral and lemon oil. May cause an allergic reaction.
4.3 Indication of Immediate Medical Attention or Special Treatment:	No data available.
5. Fire-Fighting Measures	
5.1 Extinguishing media:	Carbon dioxide, water spray, dry powder and alcohol-resistant foam.
5.2 Special Hazards Arising from Substance:	Propylene glycol will give rise to toxic fumes in 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:	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. Wash spillage site with water. Do not contaminate water sources or sewer.
7. Handling and Storage	
7.1 Precautions for Safe Handling:	Avoid spilling, skin and eye contact.
7.2 Conditions for Safe Storage:	Keep container closed when not in use. Keep away from heat and from sources of ignition. Suitable storage is high-grade stainless steel, glass, aluminium or lacquered steel drums. Store at 0-20 °C (32-68 °F).
7.3 Specific End Uses:	The substance is manufactured for use as a food ingredient and for such uses it is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation.



8. Exposure Controls / Personal Protection	
8.1 Control Parameters:	<p>Components of the preparation for which there are workplace exposure limits:</p> <ul style="list-style-type: none"> <li>Propylene glycol: UK: Long term exposure limit, measured as 8-hour time weighted average (TWA) (refs.1,3): 150 ppm (474 mg/m<sup>3</sup>) for total vapour and particulates; 10 mg/m<sup>3</sup> for particulates.</li> </ul> <p>Propylene glycol is present at ca. 59% w/w (see Section 3).</p>
8.2 Exposure Controls:	<p><u>Engineering Controls:</u> Provide adequate ventilation. Observe the workplace exposure limits and minimize the risk of inhalation of vapours.</p> <p><u>Eye/Face Protection:</u> If danger of splashing wear chemical goggles.</p> <p><u>Hand Protection:</u> Suitable protective gloves if risk of skin contact.</p> <p><u>Skin Protection:</u> If danger of splashing wear PVC or rubber apron.</p> <p><u>Respiratory Protection:</u> Not normally required.</p>
9. Physical and Chemical Properties	
Appearance:	Colourless liquid with a haze
Odour:	Citrus fruits
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	No data available. Data for propylene glycol: >150 °C (302 °F)
Flash Point:	No data available. Product is in a carrier of aqueous propylene glycol which is not flammable.
Evaporation Rate:	No data available
Flammability:	Not flammable.
Upper/Lower Flammability:	No data available
Vapour Pressure:	No data available. Data for propylene glycol: <10 mbar at 20 °C
Vapour Density:	No data available
Density:	0.750-1.350 kg.m <sup>-3</sup>
Solubility in Water:	Soluble
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity at 20 °C:	No data available
Explosive properties:	No data available. Data for propylene glycol: Heat or flame may cause explosions.
Oxidising properties:	No data available

<b>10. Stability and Reactivity</b>	
10.1 Reactivity:	No reactivity hazards known
10.2 Chemical Stability:	Stable if stored in accordance with 7.2 and 10.5.
10.3 Possibility of Hazardous Reactions:	None known
10.4 Conditions to Avoid:	Avoid excessive heat for prolonged periods of time.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Fire creates carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).
<b>11. Toxicological Information</b>	
11.1 Acute Toxicity:	Not known. The product contains propylene glycol at ca. 59% w/w as indicated in Section 3. Propylene glycol is registered as a food additive in the EU as E 1520. Toxicological data for propylene glycol: LD <sub>50</sub> oral rat, mouse 20, 22 g kg <sup>-1</sup> , respectively (1). Propylene glycol may cause local irritation of skin and mucuous membranes (1). Spray and vapour in the eyes may cause irritation and smarting (2).
11.2 Skin Corrosion/Irritation:	No data available
11.3 Serious Eye Damage/Irritation:	No data available
11.4 Respiratory or Skin Sensitisation:	Contains citral and lemon oil. May cause an allergic reaction.
11.5 Germ Cell Mutagenicity:	No data available
11.6 Carcinogenicity:	No data available
11.7 Reproductive Toxicity:	No data available
11.8 STOT-Single Exposure:	No data available
11.9 STOT-Repeated Exposure:	No data available
11.10 Aspiration Hazard:	Not hazardous

<b>12. Ecological Information</b>	
12.1 Toxicity:	No data available. The product contains propylene glycol at ca. 59% w/w as indicated in Section 3. Propylene glycol is not regarded as dangerous for the environment (2). Data for propylene glycol: LC <sub>50</sub> (24 hr) goldfish >5000 mg l <sup>-1</sup> (1); EC <sub>50</sub> (24 and 48 hr) <i>Daphnia magna</i> >10 g l <sup>-1</sup> (1).
12.2 Persistence and Degradability:	No data available. Propylene glycol is biodegradable.
12.3 Bioaccumulative Potential:	No data available. The bioconcentration of propylene glycol has been estimated as <1 (1).
12.4 Mobility in Soil:	No data available. Miscible with water.
12.5 Results of PBT and vPvB Assessment:	No data available
12.6 Other Adverse Effects:	No data available
<b>13. Disposal Considerations</b>	
Product disposal:	Dispose in accordance with all applicable local and national regulations.
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.
<b>14. Transport Information</b>	
UN-Number:	Non-hazardous for transport
Class:	Non-hazardous for transport
Shipping name:	N/A
Packing group:	Non-hazardous for transport
Marine pollutant:	No data available
<b>15. Regulatory Information</b>	
15.1 Safety, Health and Environmental Regulations:	Not classified (Regulation (EC) No. 1272/2008) The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).
15.2 Chemical Safety Assessment:	No data available

## 16. Other Information

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References: (1) Dictionary of Substances and their Effects (DOSE), 3<sup>rd</sup> Electronic Edition, 2005 (Royal Society of Chemistry/.Knovel Corp.) (2) Supplier MSDS for propylene glycol. (3) EH40/2005 Workplace Exposure Limits, Health and Safety Executive, 2<sup>nd</sup> Edition 2011.

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# Natural Addition Tropical

## Safety Data Sheet

### Note

Natural Addition Tropical is not classified as a dangerous product according to European Union legislation, and it is used as a flavouring for food, for example in the brewing of beer. However, this safety data sheet is provided voluntarily according (as appropriate) to the principles of the Classification, Labelling and Packaging Regulations (Regulation (EC) No. 1272/2008).

### 1. Identification of the Preparation and of the Company

1.1 Product Identifier:	<b>Natural Addition Tropical</b>
Other Names:	
1.2 Relevant Uses	To be used as a flavouring for foods and beverages. Not for direct consumption as an undiluted product.
1.3 Supplier:	<b>Barth-Haas UK Ltd</b>
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: intray@BarthHaas.co.uk

### 2. Hazards Identification

2.1 Classification:	Not classified (Regulation (EC) No. 1272/2008)
2.2 Label Elements:	N/A (not classified)
2.3 Other Hazards:	None

### 3. Components/Information on Ingredients

Contains flavourings in an aqueous propylene glycol carrier.

Component	Concentration of the component	CAS no.	EINECS no.	Hazard classification of the individual component
Propylene glycol (propan-1,2-diol)	Approx. 80% w/w	57-55-6	200-338-0	Propylene glycol has a workplace exposure limit assigned. It is non-hazardous when used as directed. Propylene glycol is registered as a food additive in the European Union as E 1520.

<b>4. First Aid Measures</b>	
4.1 Description of First Aid Methods:	<p><u>Inhalation:</u> Move the exposed person to fresh air at once. Rinse nose and mouth with water. Obtain medical attention if discomfort continues.</p> <p><u>Skin Contact:</u> Wash skin thoroughly with soap and water.</p> <p><u>Eye Contact:</u> Wash eye with plenty of water. Obtain medical attention if symptoms persist.</p> <p><u>Oral Ingestion:</u> Rinse mouth thoroughly provided person is conscious. Obtain medical attention if discomfort continues.</p>
4.2 Most Important Symptoms and Effects:	No data available. See Section 11.
4.3 Indication of Immediate Medical Attention or Special Treatment:	No data available.
<b>5. Fire-Fighting Measures</b>	
5.1 Extinguishing media:	Carbon dioxide, water spray, dry powder and alcohol-resistant foam.
5.2 Special Hazards Arising from Substance:	Propylene glycol will give rise to toxic fumes in fire.
5.3 Advice for Firefighters:	Fire fighters should wear self-contained positive pressure breathing apparatus.
<b>6. Accidental Release Measures</b>	
6.1 Personal Protection:	Wear appropriate protective clothing – see Section 8.
6.2 Environmental Precautions:	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. Wash spillage site with water. Do not contaminate water sources or sewer.
<b>7. Handling and Storage</b>	
7.1 Precautions for Safe Handling:	Avoid spilling, skin and eye contact.
7.2 Conditions for Safe Storage:	Keep container closed when not in use. Keep away from heat and from sources of ignition. Suitable storage is high-grade stainless steel, glass, aluminium or lacquered steel drums. Store at 0-20 °C (32-68 °F).
7.3 Specific End Uses:	The substance is manufactured for use as a food ingredient and for such uses it is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation.

8. Exposure Controls / Personal Protection	
8.1 Control Parameters:	<p>Components of the preparation for which there are workplace exposure limits:</p> <ul style="list-style-type: none"> <li>Propylene glycol: UK: Long term exposure limit, measured as 8-hour time weighted average (TWA) (refs.1,3): 150 ppm (474 mg/m<sup>3</sup>) for total vapour and particulates; 10 mg/m<sup>3</sup> for particulates.</li> </ul> <p>Propylene glycol is present at ca. 80% w/w (see Section 3).</p>
8.2 Exposure Controls:	<p><u>Engineering Controls:</u> Provide adequate ventilation. Observe the workplace exposure limits and minimize the risk of inhalation of vapours.</p> <p><u>Eye/Face Protection:</u> If danger of splashing wear chemical goggles.</p> <p><u>Hand Protection:</u> Suitable protective gloves if risk of skin contact.</p> <p><u>Skin Protection:</u> If danger of splashing wear PVC or rubber apron.</p> <p><u>Respiratory Protection:</u> Not normally required.</p>
9. Physical and Chemical Properties	
Appearance:	Transparent colourless liquid
Odour:	Tropical fruits
Odour Threshold:	No data available
pH:	No data available
Freezing Point:	No data available
Boiling Point:	No data available. Data for propylene glycol: >150 °C (302 °F)
Flash Point:	No data available. Product is in a carrier of aqueous propylene glycol which is not flammable.
Evaporation Rate:	No data available
Flammability:	Not flammable.
Upper/Lower Flammability:	No data available
Vapour Pressure:	No data available. Data for propylene glycol: <10 mbar at 20 °C
Vapour Density:	No data available
Density:	0.750-1.350 kg.m <sup>-3</sup>
Solubility in Water:	Soluble
Partition Coefficient:	No data available
Autoignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity at 20 °C:	No data available
Explosive properties:	No data available. Data for propylene glycol: Heat or flame may cause explosions.
Oxidising properties:	No data available

<b>10. Stability and Reactivity</b>	
10.1 Reactivity:	No reactivity hazards known
10.2 Chemical Stability:	Stable if stored in accordance with 7.2 and 10.5.
10.3 Possibility of Hazardous Reactions:	None known
10.4 Conditions to Avoid:	Avoid excessive heat for prolonged periods of time.
10.5 Incompatible Materials:	Strong oxidizing substances. Strong acids. Strong bases.
10.6 Hazardous Decomposition Products:	Fire creates carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ).
<b>11. Toxicological Information</b>	
11.1 Acute Toxicity:	Not known. The product contains propylene glycol at ca. 80% w/w as indicated in Section 3. Propylene glycol is registered as a food additive in the EU as E 1520. Toxicological data for propylene glycol: LD <sub>50</sub> oral rat, mouse 20, 22 g kg <sup>-1</sup> , respectively (1). Propylene glycol may cause local irritation of skin and mucuous membranes (1). Spray and vapour in the eyes may cause irritation and smarting (2).
11.2 Skin Corrosion/Irritation:	No data available
11.3 Serious Eye Damage/Irritation:	No data available
11.4 Respiratory or Skin Sensitisation:	No data available
11.5 Germ Cell Mutagenicity:	No data available
11.6 Carcinogenicity:	No data available
11.7 Reproductive Toxicity:	No data available
11.8 STOT-Single Exposure:	No data available
11.9 STOT-Repeated Exposure:	No data available
11.10 Aspiration Hazard:	Not hazardous



<b>12. Ecological Information</b>	
12.1 Toxicity:	No data available. The product contains propylene glycol at ca. 80% w/w as indicated in Section 3. Propylene glycol is not regarded as dangerous for the environment (2). Data for propylene glycol: LC <sub>50</sub> (24 hr) goldfish >5000 mg l <sup>-1</sup> (1); EC <sub>50</sub> (24 and 48 hr) <i>Daphnia magna</i> >10 g l <sup>-1</sup> (1).
12.2 Persistence and Degradability:	No data available. Propylene glycol is biodegradable.
12.3 Bioaccumulative Potential:	No data available. The bioconcentration of propylene glycol has been estimated as <1 (1).
12.4 Mobility in Soil:	No data available. Miscible with water.
12.5 Results of PBT and vPvB Assessment:	No data available
12.6 Other Adverse Effects:	No data available
<b>13. Disposal Considerations</b>	
Product disposal:	Dispose in accordance with all applicable local and national regulations.
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.
<b>14. Transport Information</b>	
UN-Number:	Non-hazardous for transport
Class:	Non-hazardous for transport
Shipping name:	N/A
Packing group:	Non-hazardous for transport
Marine pollutant:	No data available
<b>15. Regulatory Information</b>	
15.1 Safety, Health and Environmental Regulations:	Not classified (Regulation (EC) No. 1272/2008) The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).
15.2 Chemical Safety Assessment:	No data available

## 16. Other Information

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