

Product Technical Dossier

| | |
|------------------|--|
| Product | Scutellaria Extract (Skullcap) 4:1 Low Solvent |
| CCL Product Code | P11539 |

Specification Details

| | Specification | Method |
|------------------------------|----------------------|--------------|
| Means of Identification | Positive | HPTLC |
| Appearance | Fine Powder | Organoleptic |
| Colour | Yellow Brown | Organoleptic |
| Aroma | Characteristic | Organoleptic |
| Flavour | Characteristic | Organoleptic |
| Sieve Analysis % passed | 100% through 80 mesh | |
| Loss on Drying | Max 5% | |
| Ash | Max 10% | |
| Bulk Density | 0.4-0.6 g/ml | |
| Impurities/Residual Solvents | Complies with EP | |

Microbiological Limits

| | |
|--------------------|------------------|
| Total Viable Count | Max 10,000 cfu/g |
| Yeasts & Moulds | Max 1,000 cfu/g |
| E. Coli | Negative/10g |
| Salmonella | Negative/25g |

Heavy Metal Limits

| | |
|--------------|-------------|
| Lead (Pb) | Max 3 ppm |
| Cadmium (Cd) | Max 1 ppm |
| Mercury (Hg) | Max 0.1 ppm |
| Arsenic (As) | Max 1 ppm |

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Additional Technical Information

| | |
|---|--|
| Raw Material Full Botanical / Chemical Name | Scutellaria Baicalensis Georgi |
| Part Used | Leaves |
| The material is Food Grade | Yes |
| Ratio of Material | 4:1 |
| Solvent used | Water and Ethanol (80:20) |
| Cultivated / Wild | Cultivated |
| Harvest Method | Manual |
| Harvest Period | August to September |
| Country of Origin | China |
| Country of Manufacture | China |
| Solubility in Alcohol | Partly soluble in ethanol |
| Solubility in Water | Partly soluble in water |
| Tariff Code | 1302199099 |
| Shelf Life from Date of Manufacture | Min 3 Years |
| Suitable for Vegetarians? | Yes |
| Suitable for Vegans? | Yes |
| Storage Conditions | This material is to be stored in a tightly sealed bag/container and to be kept in a cool place away from moisture and direct sunlight. |

Composition Origin, Function and Percentages

| Ingredients | Function | % composition | Source |
|-----------------|--------------------|---------------|--------------------------------|
| Baikal skullcap | Dietary Supplement | 90~99% | Scutellaria baicalensis Georgi |
| Maltodextrin | Carrier | 1~10% | Zea mays L. |

Please note that surveillance testing may mean that not all the parameters stated on this specification are tested for every batch.

The allergen information is supplied by the manufacturer, we have not tested for each individual allergen to ensure they are not present. The information given is based on a documented risk assessment and is accurate to the best of our knowledge. If you intend to make a voluntary "free from" claim on your pack, additional testing may need to be carried out. For technical and labelling guidance you should always speak to the competent authority for the market or member state in which the final products are placed.

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| Allergens | Product Contains YES/NO | Listed Item on Site at Manufacturer YES/NO | Where applicable, is there risk of cross-contamination? YES/NO or N/A |
|---|-------------------------|--|---|
| Peanuts and Peanut Derivatives (including possible cross contamination) | No | No | No |
| Nut and Nut Derivatives <i>Almond (Amygdalus communis L.), Hazelnut (Corylus avellana), Walnut (Juglans regia), Cashew (Anacardium occidentale), Pecan nut (Carya illinoensis (Wangenh.) K. Koch), Brazil nut (Bertholletia excelsa), Pistachio nut (Pistacia vera), Macadamia nut and Queensland nut (Macadamia ternifolia)</i> | No | No | No |
| Sesame Seeds and Sesame Seed Derivatives | No | No | No |
| Milk and Milk Derivatives (including lactose) | No | No | No |
| Egg and Egg Derivatives | No | No | No |
| Cereals and Derivatives containing OR POTENTIALLY CONTAMINATED WITH Gluten <i>(wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barleygrass)</i> | No | No | No |
| Soya and Soya Derivatives | No | No | No |
| Lupin and Lupin Derivatives | No | No | No |
| Mustard and Mustard Derivatives | No | No | No |
| Celery or Celery Derivatives (including Celeriac) | No | No | No |
| Fish and Fish Derivatives | No | No | No |
| Molluscs and their Derivatives | No | No | No |
| Crustaceans and their Derivatives | No | No | No |
| Sulphur Dioxide and Sulphites (E220, E228) at levels > 10mg/kg or 10mg/litre | No | No | No |

| Additives / Contaminants / Dietary Requirements / Intolerances | Product Contains YES/NO | Listed Item on Site at Manufacturer YES/NO | Where applicable, is there risk of cross-contamination? YES/NO or N/A |
|--|-------------------------|--|---|
| Additives / E Numbers | No | No | No |
| Antioxidants | No | No | No |
| Ethylene Oxide | No | No | No |
| Gelatine | No | No | No |
| Flavourings (Artificial / Nature Identical / Natural / Smoked) | No | No | No |
| Maize / Corn and any Derivatives | Yes | Yes | Maltodextrin from Corn |
| Legumes / Pulses | No | No | No |
| Rice and Rice Derivatives | No | No | No |
| Added Salt | No | No | No |
| Added Sugar / artificial or natural sweeteners | No | No | No |
| Aspartame | No | No | No |
| BHA / BHT (E320 / E321) | No | No | No |
| Caffeine | No | No | No |
| Colours (Artificial / Nature Identical / Natural / Smoked) | No | No | No |
| Dextrose | No | No | No |
| other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds) | No | No | No |
| Kiwi fruit | No | No | No |
| Polyols (sugar alcohols) | No | No | No |
| grape fruit | No | No | No |
| Sorbic Acid (E200, E203) | No | No | No |
| Any other Preservatives | No | No | No |
| Ethanol | Yes | Yes | Used as Solvent |
| Honey | No | No | No |
| Lactose | No | No | No |
| Yeast and Yeast Derivatives | No | No | No |
| All Animal Products (Beef, Pork, Poultry or other) and Derivatives (which may include growth/yield hormones, antibiotics etc.) | No | No | No |
| Bovine Products or Derivatives (which may include growth/yield hormones, antibiotics etc.) | No | No | No |

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Statements

| | |
|---|-----|
| Confirmation of BSE / TSE Status This is to certify that this product complies with all relevant current UK and EU Legislative requirements in regard to Transmissible Spongiform Encephalopathies (TSE) and Bovine Spongiform Encephalopathy (BSE) for human food, and so is free of TSE/BSE. | Yes |
| This is also to certify that, during the course of their manufacture, the above-mentioned product did not come into contact with any materials, which could be derived from TSE/BSE risk materials. | Yes |
| Confirmation of GM Status This is to certify that this product is not manufactured from GM raw materials and is therefore not subject to labelling under current regulations. | Yes |
| Confirmation of Non-Irradiation Status This is to certify that this product, whole or in part, has not been subjected to Ionising Radiation as per European Directives. | Yes |
| Confirmation of Nandrolone Status This is to certify that this product, whole or in part, has not come into contact with Nandrolone or any of its precursors in any way. | Yes |
| Confirmation of IOC Product Status This is to certify that this product, whole or in part, has not come into contact with any product/s, which is banned by the IOC (International Olympics Committee) and or WADA. | Yes |
| Confirmation of Animal Testing Status This is to certify that all the products sold by Cambridge Commodities have not been tested on animals in any part of its manufacture in accordance with current regulations. | Yes |
| Confirmation of Pesticides Status This is to certify that the above-mentioned product complies with the EU max residue limits (MRLs) on pesticides. | Yes |
| Confirmation of Nanoparticles Status This is to certify that unless otherwise stated, the above-mentioned product is free of nanoparticles. Commission Recommendation, defines as follows: "Nanomaterial" means a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50 % or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm - 100 nm". | Yes |
| Packaging Status We hereby certify that the packaging used in the above mentioned material conforms to EU regulations and subsequent amendments on food grade packaging | Yes |
| Confirmation of PAH status This is to certify that the above-mentioned product complies with the max PAH limits set by the EU regulations | Yes |

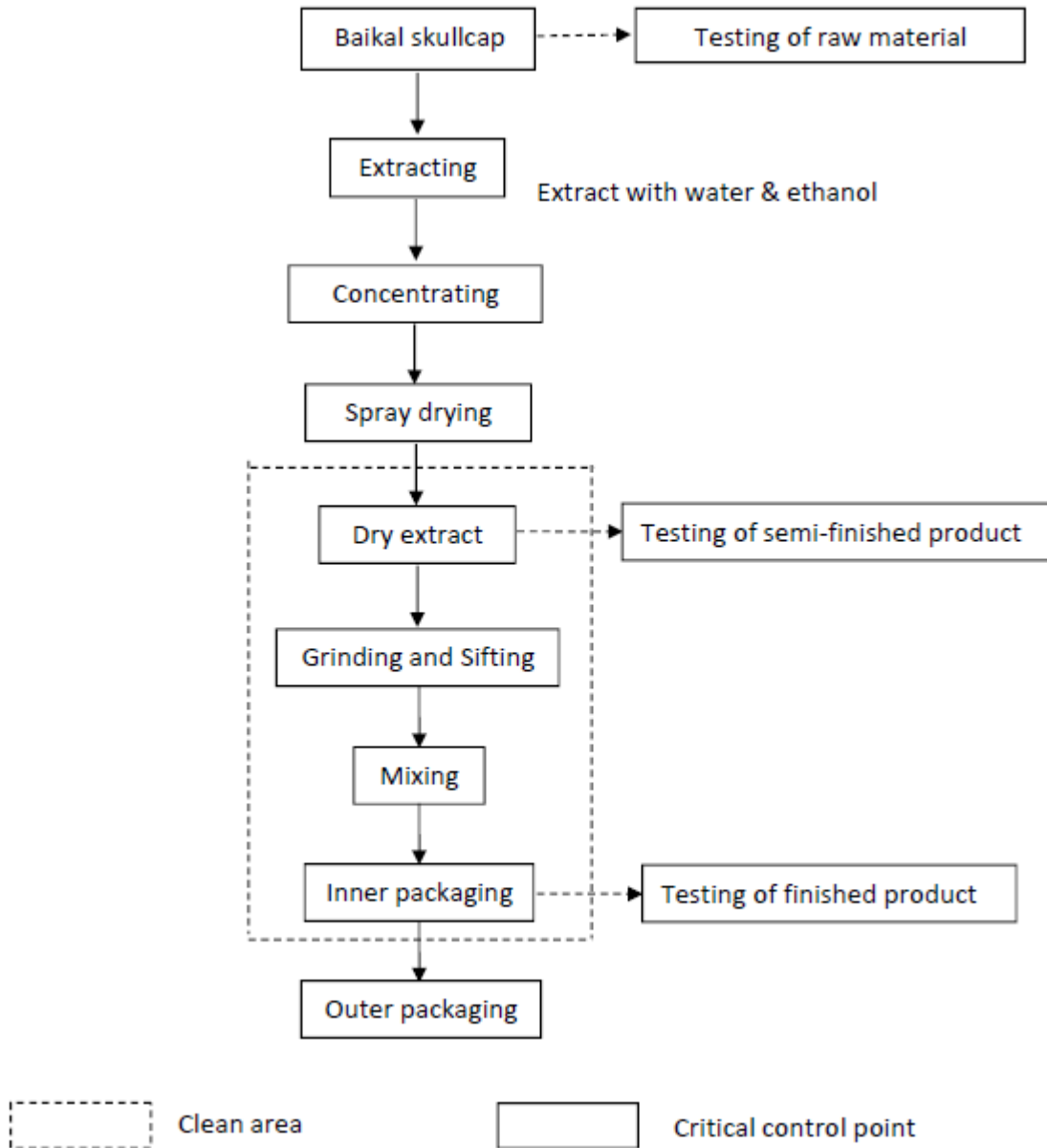
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Product Flow Chart



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Cambridge Commodities

Chemwatch Hazard Alert Code: 0

Version No: 1.1

Safety Data Sheet (Conforms to Regulation (EU) No 2015/830)

Issue Date: 21/06/2018

Print Date: 21/06/2018

S,REACH,GBR.EN

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

1.1. Product Identifier

| | |
|-------------------------------|---|
| Product name | P11539 Scutellaria Extract (Skullcap) 4:1 Low Solvent |
| Synonyms | Not Available |
| Other means of identification | P11539 |
| CAS number | Not Available |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------------------|---|
| Relevant identified uses | Use according to manufacturer's directions. |
| Uses advised against | Not Applicable |

1.3. Details of the supplier of the safety data sheet

| | |
|-------------------------|--|
| Registered company name | Cambridge Commodities |
| Address | Lancaster Way Business Park, Ely, Cambridgeshire Cambridgeshire CB6 3NX United Kingdom |
| Telephone | +44 1353 667258 |
| Fax | Not Available |
| Website | Not Available |
| Email | MsdS@c-c-l.com |

1.4. Emergency telephone number

| | |
|-----------------------------------|---------------|
| Association / Organisation | Not Available |
| Emergency telephone numbers | Not Available |
| Other emergency telephone numbers | Not Available |

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

| | |
|---|----------------|
| Classification according to regulation (EC) No 1272/2008 [CLP] ^[1] | Not Applicable |
|---|----------------|

2.2. Label elements

| | |
|---------------------|-----------------------|
| Hazard pictogram(s) | Not Applicable |
| SIGNAL WORD | NOT APPLICABLE |

Hazard statement(s)

Not Applicable

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

2.3. Other hazards

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Cumulative effects may result following exposure*.

RECh - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

| 1.CAS No 2.EC No 3.Index No 4.REACH No | %[weight] | Name | Classification according to regulation (EC) No 1272/2008 [CLP] |
|--|-----------|---------------------------------------|--|
| 1.Not Available 2.Not Available 3.Not Available 4.Not Available | 90-99 | <u>Scutellaria baicalensis Georgi</u> | Not Applicable |
| 1.9050-36-6 2.232-940-4 3.Not Available 4.Not Available | 1-10 | <u>maltodextrin</u> | Not Applicable |

Legend: 1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; * EU IOELVs available

3.2. Mixtures

See 'Information on ingredients' in section 3.1

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

| | |
|---------------------|-----------------------------|
| Eye Contact | ▶ Generally not applicable. |
| Skin Contact | ▶ Generally not applicable. |
| Inhalation | ▶ Generally not applicable. |
| Ingestion | ▶ Generally not applicable. |

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

5.1. Extinguishing media

- ▶ There is no restriction on the type of extinguisher which may be used.
- ▶ Use extinguishing media suitable for surrounding area.

5.2. Special hazards arising from the substrate or mixture

| | |
|-----------------------------|-------------|
| Fire Incompatibility | None known. |
|-----------------------------|-------------|

5.3. Advice for firefighters

| | |
|------------------------------|--|
| Fire Fighting | Slight hazard when exposed to heat, flame and oxidisers. |
| Fire/Explosion Hazard | <p>For starch/ air mixtures Starch is a class St1 dust at normal moisture level: Minimum Ignition Temperature (MIE): >30 mJ at normal moisture level Pmax 9.5 Bar Kst 170 bar.m/s Layer Ignition Temperature: >450 deg C Autoignition Temperature: 170 deg C (above this temperature starch will self-heat)</p> <p>Dust Explosion Hazard Class 1</p> <p>Dusts fall into one of three Kst* classes. Class 1 dusts; Kst 1-200 m3/sec; Class 2 dusts; 201-299 m3/sec. Class 3 dusts; Kst 300 or more. Most agricultural dusts (grains, flour etc.) are Class 1; pharmaceuticals and other speciality chemicals are typically Class 1 or 2; most unoxidised metallic dusts are Class 3. The higher the Kst, the more energetically the dust will burn and the greater is the explosion risk and the greater is the speed of the explosion.. Standard test conditions, used to derive the Kst, are representative of industrial conditions, but do not represent and absolute worst case. Increased levels of turbulence increase the speed of the explosion dramatically.</p> <p>* Kst - a normalised expression of the burning dust pressure rise rate over time. Dusts with Minimum Ignition Energies (MIEs) ranging between 20 and 100 mJ may be sensitive to ignition. They require that:</p> <ul style="list-style-type: none"> · plant is grounded · personnel might also need to be grounded · the use of high resistivity materials (such as plastics) should be restricted or avoided during handling or in packaging <p>The majority of ignition accidents occur within or below this range. The MIE of a dust/air mix depends on the particle size the water content and the temperature of the dust. The finer and the dryer the dust the lower the MIE. Higher temperatures cause lower MIE and an increased risk of dust explosion. Quoted values for MIE generally are only representative. Characteristics may change depending upon the process and conditions of use or any changes</p> |

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made to the dust during use, including further grinding or mixing with other products. In order to obtain more specific data for dust, as used, it is recommended that further characterisation testing is performed.

Articles and manufactured articles may constitute a fire hazard where polymers form their outer layers or where combustible packaging remains in place. Certain substances, found throughout their construction, may degrade or become volatile when heated to high temperatures. This may create a secondary hazard.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

| | |
|---------------------|---|
| Minor Spills | <ul style="list-style-type: none"> ▶ Clean up all spills immediately. ▶ Secure load if safe to do so. ▶ Bundle/collect recoverable product. ▶ Collect remaining material in containers with covers for disposal. |
| Major Spills | <ul style="list-style-type: none"> ▶ Minor hazard. ▶ Clear area of personnel. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear physical protective gloves e.g. Leather. ▶ Contain spill/secure load if safe to do so. ▶ Bundle/collect recoverable product and label for recycling. ▶ Collect remaining product and place in appropriate containers for disposal. ▶ Clean up/sweep up area. ▶ Water may be required. |

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling

| | |
|--------------------------------------|--|
| Safe handling | <ul style="list-style-type: none"> ▶ Limit all unnecessary personal contact. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Avoid contact with incompatible materials. ▶ When handling, DO NOT eat, drink or smoke. ▶ Keep containers securely sealed when not in use. ▶ Avoid physical damage to containers. ▶ Always wash hands with soap and water after handling. ▶ Work clothes should be laundered separately. ▶ Use good occupational work practice. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS. ▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained. |
| Fire and explosion protection | See section 5 |
| Other information | <ul style="list-style-type: none"> ▶ Store away from incompatible materials. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|--------------------------------|--|
| Suitable container | <p>Generally packaging as originally supplied with the article or manufactured item is sufficient to protect against physical hazards.</p> <p>If repackaging is required ensure the article is intact and does not show signs of wear. As far as is practicably possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler.</p> |
| Storage incompatibility | <p>Avoid contamination of water, foodstuffs, feed or seed.</p> <p>Reducing sugar-based material.</p> <p>Autooxidation of reducing sugars may produce up to 3000 ppm carbon monoxide under moderately alkaline conditions. High pH aqueous solutions of saccharides (aldoses, ketoses) or polysaccharides based on these sugars may generate hazardous atmospheres in confined spaces.</p> <p>Reducing sugars contain an aldehyde or free hemiacetal in the open-chain form. Sugars with ketone groups in their open chain form are capable of isomerising via a series of tautomeric shifts to produce an aldehyde group in solution. Therefore, ketone-bearing sugars like fructose are considered reducing sugars but it is the isomer containing an aldehyde group which is reducing since ketones cannot be oxidized without decomposition of the sugar.</p> <p>Many disaccharides, like lactose and maltose, also have a reducing form, as one of the two units may have an open-chain form with an aldehyde group. However, sucrose and trehalose, in which the anomeric carbons of the two units are linked together, are non-reducing disaccharides since neither of the rings is capable of opening.</p> <p>In glucose polymers such as starch and starch-derivatives like glucose syrup, maltodextrin and dextrin the macromolecule begins with a reducing sugar, a free aldehyde. More hydrolysed starch contains more reducing sugars. The percentage of reducing sugars present in these starch derivatives is called dextrose equivalent (DE).</p> <p>Dilute solutions of all sugars are subject to fermentation, either by yeast or by other microorganisms or enzymes derived from these, producing gases which can pressurise and burst sealed containers.</p> <p>Some microorganisms will produce hydrogen or methane, adding a fire and explosion hazard.</p> <p>None known</p> |

7.3. Specific end use(s)

See section 1.2

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SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

DERIVED NO EFFECT LEVEL (DNEL)

Not Available

PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Not Available | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available |

EMERGENCY LIMITS

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|---|---------------|---------------|---------------|---------------|
| P11539 Scutellaria Extract (Skullcap) 4:1 Low Solvent | Not Available | Not Available | Not Available | Not Available |

| Ingredient | Original IDLH | Revised IDLH |
|--------------------------------|---------------|---------------|
| Scutellaria baicalensis Georgi | Not Available | Not Available |
| maltodextrin | Not Available | Not Available |

8.2. Exposure controls

| | |
|--|---|
| 8.2.1. Appropriate engineering controls | <p>Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use. Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment.</p> <p>Assess operations based upon available dust explosion information to determine the suitability of preventative or protective systems as precautionary measures against possible dust explosions. If prevention is not possible, consider protection by use of containment, venting or suppression of dust handling equipment. Where explosion venting is considered to be the most appropriate method of protection, vent areas should preferably be calculated based on K_{St} rather than an St value. If nitrogen purging is considered as the protective system, it must operate with an oxygen level below the limiting oxygen concentration. The system should include an oxygen monitoring and shut-down facility in the event of excessive oxygen being detected.</p> <p>The maximum surface temperature of enclosures potentially exposed to this material should be based on values obtained by taking 2/3 of the minimum ignition temperature (MIE) of the dust cloud. The effect of dust layers should be reviewed.</p> <p>An isolated (insulated) human body can readily produce electrostatic discharges in excess of 50 mJ, but have been recorded up to 100 mJ.</p> |
| 8.2.2. Personal protection |  |
| Eye and face protection | <ul style="list-style-type: none"> ▶ Safety glasses. ▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] <p>No special equipment for minor exposure i.e. when handling small quantities.</p> <p>OTHERWISE:</p> <ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] ▶ Safety glasses with side shields ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] |
| Skin protection | See Hand protection below |
| Hands/feet protection | Wear general protective gloves, eg. light weight rubber gloves. |
| Body protection | See Other protection below |
| Other protection | <p>No special equipment needed when handling small quantities.</p> <p>OTHERWISE:</p> <ul style="list-style-type: none"> ▶ Overalls. ▶ Barrier cream. ▶ Eyewash unit. |

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Respiratory protection

Not Applicable

Respiratory protection not normally required due to the physical form of the product.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | | | |
|--|---------------|---|---------------|
| Appearance | Not Available | | |
| Physical state | article | Relative density (Water = 1) | Not Available |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | Not Available | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol) | Not Available |
| Flash point (°C) | Not Available | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Not Available | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water (g/L) | Immiscible | pH as a solution (1%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

9.2. Other information

Not Available

SECTION 10 STABILITY AND REACTIVITY

| | |
|--|---|
| 10.1. Reactivity | See section 7.2 |
| 10.2. Chemical stability | Product is considered stable and hazardous polymerisation will not occur. |
| 10.3. Possibility of hazardous reactions | See section 7.2 |
| 10.4. Conditions to avoid | See section 7.2 |
| 10.5. Incompatible materials | See section 7.2 |
| 10.6. Hazardous decomposition products | See section 5.3 |

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

| | |
|--------------|--|
| Inhaled | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. |
| Ingestion | Starch is generally of low toxicity. An abnormal craving for starch (amylophagia) during pregnancy has been recognized in certain areas. The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. |
| Skin Contact | The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. |
| Eye | Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). |
| Chronic | Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course. Some workers may develop chronic occupational dermatitis (generally mild) through the handling of starch products. When starch is used as a lubricant in surgical gloves, small amounts, released into the patient during the course of surgery, have resulted in granulomas and peritonitis. |

| | | |
|---|---------------|---------------|
| P11539 Scutellaria Extract (Skullcap) 4:1 Low Solvent | TOXICITY | IRRITATION |
| | Not Available | Not Available |

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| | | |
|--------------------------------|---------------|---------------|
| Scutellaria baicalensis Georgi | TOXICITY | IRRITATION |
| | Not Available | Not Available |
| maltodextrin | TOXICITY | IRRITATION |
| | Not Available | Not Available |

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

| | |
|---------------------|--|
| MALTODEXTRIN | No significant acute toxicological data identified in literature search. |
|---------------------|--|

| | | | |
|-----------------------------------|---|--------------------------|---|
| Acute Toxicity | ☉ | Carcinogenicity | ☉ |
| Skin Irritation/Corrosion | ☉ | Reproductivity | ☉ |
| Serious Eye Damage/Irritation | ☉ | STOT - Single Exposure | ☉ |
| Respiratory or Skin sensitisation | ☉ | STOT - Repeated Exposure | ☉ |
| Mutagenicity | ☉ | Aspiration Hazard | ☉ |

Legend: ✘ - Data available but does not fill the criteria for classification
✔ - Data available to make classification
☉ - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

| P11539 Scutellaria Extract (Skullcap) 4:1 Low Solvent | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|---|----------|--------------------|---------------|---------------|---------------|
| | | Not Available | Not Available | Not Available | Not Available |

| Scutellaria baicalensis Georgi | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|--------------------------------|----------|--------------------|---------------|---------------|---------------|
| | | Not Available | Not Available | Not Available | Not Available |

| maltodextrin | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|--------------|----------|--------------------|---------------|---------------|---------------|
| | | Not Available | Not Available | Not Available | Not Available |

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

12.2. Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------|---------------------------------------|---------------------------------------|
| | No Data available for all ingredients | No Data available for all ingredients |

12.3. Bioaccumulative potential

| Ingredient | Bioaccumulation |
|------------|---------------------------------------|
| | No Data available for all ingredients |

12.4. Mobility in soil

| Ingredient | Mobility |
|------------|---------------------------------------|
| | No Data available for all ingredients |

12.5. Results of PBT and vPvB assessment

| | P | B | T |
|-------------------------|---------------|---------------|---------------|
| Relevant available data | Not Available | Not Available | Not Available |
| PBT Criteria fulfilled? | Not Available | Not Available | Not Available |

12.6. Other adverse effects

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

| | |
|-------------------------------------|---|
| Product / Packaging disposal | <ul style="list-style-type: none"> Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. |
| Waste treatment options | Not Available |
| Sewage disposal options | Not Available |

SECTION 14 TRANSPORT INFORMATION**Labels Required**

| | |
|-------------------------|----------------|
| Marine Pollutant | NO |
| HAZCHEM | Not Applicable |

Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

| | | | | | | | | | | | |
|---|---|--------------------------------|----------------|---------------------|----------------|--------------|----------------|--------------------|----------------|------------------|----------------|
| 14.1. UN number | Not Applicable | | | | | | | | | | |
| 14.2. UN proper shipping name | Not Applicable | | | | | | | | | | |
| 14.3. Transport hazard class(es) | <table border="1"> <tr> <td>Class</td> <td>Not Applicable</td> </tr> <tr> <td>Subrisk</td> <td>Not Applicable</td> </tr> </table> | Class | Not Applicable | Subrisk | Not Applicable | | | | | | |
| Class | Not Applicable | | | | | | | | | | |
| Subrisk | Not Applicable | | | | | | | | | | |
| 14.4. Packing group | Not Applicable | | | | | | | | | | |
| 14.5. Environmental hazard | Not Applicable | | | | | | | | | | |
| 14.6. Special precautions for user | <table border="1"> <tr> <td>Hazard identification (Kemler)</td> <td>Not Applicable</td> </tr> <tr> <td>Classification code</td> <td>Not Applicable</td> </tr> <tr> <td>Hazard Label</td> <td>Not Applicable</td> </tr> <tr> <td>Special provisions</td> <td>Not Applicable</td> </tr> <tr> <td>Limited quantity</td> <td>Not Applicable</td> </tr> </table> | Hazard identification (Kemler) | Not Applicable | Classification code | Not Applicable | Hazard Label | Not Applicable | Special provisions | Not Applicable | Limited quantity | Not Applicable |
| Hazard identification (Kemler) | Not Applicable | | | | | | | | | | |
| Classification code | Not Applicable | | | | | | | | | | |
| Hazard Label | Not Applicable | | | | | | | | | | |
| Special provisions | Not Applicable | | | | | | | | | | |
| Limited quantity | Not Applicable | | | | | | | | | | |

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

| | | | | | | | | | | | | | | | |
|---|---|--------------------|----------------|---------------------------------|----------------|-------------------------------|----------------|--|----------------|--|----------------|---|----------------|--|----------------|
| 14.1. UN number | Not Applicable | | | | | | | | | | | | | | |
| 14.2. UN proper shipping name | Not Applicable | | | | | | | | | | | | | | |
| 14.3. Transport hazard class(es) | <table border="1"> <tr> <td>ICAO/IATA Class</td> <td>Not Applicable</td> </tr> <tr> <td>ICAO / IATA Subrisk</td> <td>Not Applicable</td> </tr> <tr> <td>ERG Code</td> <td>Not Applicable</td> </tr> </table> | ICAO/IATA Class | Not Applicable | ICAO / IATA Subrisk | Not Applicable | ERG Code | Not Applicable | | | | | | | | |
| ICAO/IATA Class | Not Applicable | | | | | | | | | | | | | | |
| ICAO / IATA Subrisk | Not Applicable | | | | | | | | | | | | | | |
| ERG Code | Not Applicable | | | | | | | | | | | | | | |
| 14.4. Packing group | Not Applicable | | | | | | | | | | | | | | |
| 14.5. Environmental hazard | Not Applicable | | | | | | | | | | | | | | |
| 14.6. Special precautions for user | <table border="1"> <tr> <td>Special provisions</td> <td>Not Applicable</td> </tr> <tr> <td>Cargo Only Packing Instructions</td> <td>Not Applicable</td> </tr> <tr> <td>Cargo Only Maximum Qty / Pack</td> <td>Not Applicable</td> </tr> <tr> <td>Passenger and Cargo Packing Instructions</td> <td>Not Applicable</td> </tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td> <td>Not Applicable</td> </tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td> <td>Not Applicable</td> </tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td> <td>Not Applicable</td> </tr> </table> | Special provisions | Not Applicable | Cargo Only Packing Instructions | Not Applicable | Cargo Only Maximum Qty / Pack | Not Applicable | Passenger and Cargo Packing Instructions | Not Applicable | Passenger and Cargo Maximum Qty / Pack | Not Applicable | Passenger and Cargo Limited Quantity Packing Instructions | Not Applicable | Passenger and Cargo Limited Maximum Qty / Pack | Not Applicable |
| Special provisions | Not Applicable | | | | | | | | | | | | | | |
| Cargo Only Packing Instructions | Not Applicable | | | | | | | | | | | | | | |
| Cargo Only Maximum Qty / Pack | Not Applicable | | | | | | | | | | | | | | |
| Passenger and Cargo Packing Instructions | Not Applicable | | | | | | | | | | | | | | |
| Passenger and Cargo Maximum Qty / Pack | Not Applicable | | | | | | | | | | | | | | |
| Passenger and Cargo Limited Quantity Packing Instructions | Not Applicable | | | | | | | | | | | | | | |
| Passenger and Cargo Limited Maximum Qty / Pack | Not Applicable | | | | | | | | | | | | | | |

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

| | | | | | | | |
|---|--|------------|----------------|--------------------|----------------|--------------------|----------------|
| 14.1. UN number | Not Applicable | | | | | | |
| 14.2. UN proper shipping name | Not Applicable | | | | | | |
| 14.3. Transport hazard class(es) | <table border="1"> <tr> <td>IMDG Class</td> <td>Not Applicable</td> </tr> <tr> <td>IMDG Subrisk</td> <td>Not Applicable</td> </tr> </table> | IMDG Class | Not Applicable | IMDG Subrisk | Not Applicable | | |
| IMDG Class | Not Applicable | | | | | | |
| IMDG Subrisk | Not Applicable | | | | | | |
| 14.4. Packing group | Not Applicable | | | | | | |
| 14.5. Environmental hazard | Not Applicable | | | | | | |
| 14.6. Special precautions for user | <table border="1"> <tr> <td>EMS Number</td> <td>Not Applicable</td> </tr> <tr> <td>Special provisions</td> <td>Not Applicable</td> </tr> <tr> <td>Limited Quantities</td> <td>Not Applicable</td> </tr> </table> | EMS Number | Not Applicable | Special provisions | Not Applicable | Limited Quantities | Not Applicable |
| EMS Number | Not Applicable | | | | | | |
| Special provisions | Not Applicable | | | | | | |
| Limited Quantities | Not Applicable | | | | | | |

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

| | |
|--------------------------------------|----------------|
| 14.1. UN number | Not Applicable |
| 14.2. UN proper shipping name | Not Applicable |

| | | |
|------------------------------------|---------------------|----------------|
| 14.3. Transport hazard class(es) | Not Applicable | Not Applicable |
| 14.4. Packing group | Not Applicable | |
| 14.5. Environmental hazard | Not Applicable | |
| 14.6. Special precautions for user | Classification code | Not Applicable |
| | Special provisions | Not Applicable |
| | Limited quantity | Not Applicable |
| | Equipment required | Not Applicable |
| | Fire cones number | Not Applicable |

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION**15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture****SCUTELLARIA BAICALENSIS GEORG(NOT AVAILABLE) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

MALTODEXTRIN(9050-36-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

EU REACH Regulation (EC) No 1907/2006 - Annex IV - Exemptions from the Obligation to Register in Accordance with Article 2(7)(a) (English)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2015/830; Regulation (EC) No 1272/2008 as updated through ATPs.

15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

ECHA SUMMARY

| Ingredient | CAS number | Index No | ECHA Dossier |
|--------------|------------|---------------|---------------|
| maltodextrin | 9050-36-6 | Not Available | Not Available |

| Harmonisation (C&L Inventory) | Hazard Class and Category Code(s) | Pictograms Signal Word Code(s) | Hazard Statement Code(s) |
|-------------------------------|-----------------------------------|--------------------------------|--------------------------|
| 1 | Not Classified | Not Available | Not Available |
| 2 | Not Classified | Not Available | Not Available |

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

| National Inventory | Status |
|-------------------------------|--|
| Australia - AICS | Y |
| Canada - DSL | Y |
| Canada - NDSL | N (maltodextrin) |
| China - IECSC | Y |
| Europe - EINEC / ELINCS / NLP | Y |
| Japan - ENCS | N (maltodextrin) |
| Korea - KECI | Y |
| New Zealand - NZIoC | Y |
| Philippines - PICCS | Y |
| USA - TSCA | Y |
| Legend: | Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

SECTION 16 OTHER INFORMATION

| | |
|---------------|------------|
| Revision Date | 21/06/2018 |
| Initial Date | 21/06/2018 |

Full text Risk and Hazard codes**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

P11539 Scutellaria Extract (Skullcap) 4:1 Low Solvent

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

- EN 166 Personal eye-protection
- EN 340 Protective clothing
- EN 374 Protective gloves against chemicals and micro-organisms
- EN 13832 Footwear protecting against chemicals
- EN 133 Respiratory protective devices

Definitions and abbreviations

- PC—TWA: Permissible Concentration-Time Weighted Average
- PC—STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit,
- IDLH: Immediately Dangerous to Life or Health Concentrations
- OSF: Odour Safety Factor
- NOAEL :No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index

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The Information provided in this document is subject to change and the batch specific certificate of analysis should always be referenced.

To be used as per local legislation.

Change History

| Version | Change | Customer Notification required Yes / No |
|---------|-------------|---|
| 1 | First Issue | N/A |

Document Approval

| Originator Job Title | QC Technician | Approver Job Title | Quality Specialist |
|---|---------------|--|--------------------|
|  Malgorzata Sosnin (Jun 25, 2018) | |  Casey White (Jun 25, 2018) | |

Product Code: P11539

Version: 1



FDA number: 16806073982



P11539-Scutellaria Extract (Skullcap) 4-1 Low Solvent

Adobe Sign Document History

06/25/2018

| | |
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| Status: | Signed |
| Transaction ID: | CBJCHBCAABAAS_3VeBPyG_srhVBhCD1xaF9rFxsrsZC8 |

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