

SAFETY DATA SHEET

Originally Prepared: 08 Aug 2013

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Revision: 28 Dec 2022, this version supersedes all previous.

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

1.1 Product identifier

Annatto Extract WS Liquid

Contained Active Components:

CAS No: 1393-63-1, 1310-58-3

EC No: 215-735-4, 215-181-3

E NUMBER: E160b

Exempt from Registration according to Article 2 of REACH, Regulation (EC) No. 1907/2006 when used in food.

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

Identified uses: colour where permitted.

Uses advised against and reasons why: No available information

1.3 Details of the supplier of the safety data sheet

D.D. Williamson Colors, LLC, 815 Sunset Road, Port Washington, WI, 53074 United States 1-262-268-7272

D.D. Williamson & Co., LLC, 1901 Payne Street, Louisville, KY, 40206 United States 1-800-CARAMEL

D.D. Williamson (Ireland) Ltd., Little Island Business Park, Co. Cork, Ireland T45 RR80 353 21 4353821

D.D. Williamson (UK) Ltd., Trafford Park Road, Manchester M17 1PA, United Kingdom 44 161 886 3345

SuperiorPowders, Ltd., Factory Lane, Bason Bridge, Highbridge, TA9 4RN, United Kingdom 44 (0) 1278 784521

D.D. Williamson Ingredients (Shanghai) Ltd., 3823 Jiang Cheng Road, Minhang, Shanghai 200245, P.R. China

D.D. Williamson (Pty) Ltd., Smithco Industrial Park #19, King Mswati III Ave., Plot 471, Matsapha M202, Eswatini

D.D. Williamson do Brasil Ltda., Ave. Buriti 5680, Distrito Industrial, 69075-000 Manaus AM, Brasil 55-92-3301-4000

DDW Colours UK Ltd., Third Avenue, Centrum 100, Burton upon Trent, DE14 2WD, United Kingdom 44 (0) 1283 202000

DDW Colours Sdn Bhd., PLO 221 Jln Bakau 6, Tg Langsat Ind Complex, 81700 Pasir Gudang, Johor, Malaysia 6072 575757

SDS inquires can be submitted to ddw.quality@ddwcolor.com

1.4 Emergency telephone number

United States 1-800-CARAMEL (only during office hours)

Ireland 353 21 4353821 (only during office hours)

United Kingdom 44 161 886 3345 (only during office hours)

P.R. China 86-21-5-4720868 (only during office hours)

Eswatini 268-2518-4869 (only during office hours)

Brasil 55-92-3301-4000 (only during office hours)

Malaysia 6072 575757 (only during office hours)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin irritant Category 2 (H315: Causes skin irritation)

Eye irritant Category 2 (H319: Causes serious eye irritation)

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms: GHS07: Exclamation mark



Signal Word: Warning

Hazard statements:

H315: Causes skin irritation

H319: Causes serious eye irritation

Precautionary statements:

P264 Wash all exposed skin thoroughly after handling.

P280 Wear protective gloves and eye/face protection.

P302+P352 IF ON SKIN: Wash with plenty 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.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

2.3 Other hazards

This substance/mixture contains no components considered to be either PBT or vPvB at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name: Potassium Hydroxide

CAS No: 1310-58-3

EC No: 215-181-3

Composition: >0.5% w/w

Classification according to Regulation (EC) No. 1272/2008: Skin Corr. 1A (H314), Acute Tox. 4 (H302)

Specific Concentration Limit:

Skin Corr.1A; H314: $\geq 5\%$

Skin Corr.1B; H314: $2 - < 5\%$

Skin Irrit.2; H315: $0,5 - < 2\%$

Eye Irrit.2; H319: $0,5 - < 2\%$

Acute toxicity oral value: LD50 oral (rat) = 333 mg/kg

No other ingredients in this mixture are classified as hazardous. Ingredient composition available upon request.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Use personal protective equipment as required. An eyewash and safety shower should be readily available. In the case of sudden unwellness seek medical advice.

Inhalation

Move patient to place with fresh air. Ventilate. If respiratory symptoms occur seek medical attention.

Skin Contact

Product may temporarily stain skin. Wash with soap and water. If irritation occurs seek medical attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth with water and drink plenty of water to dilute substance. Do not induce vomiting. Obtain medical advice if irritation occurs.

First Aid Responder

Personal protection equipment is recommended. (See Section 8)

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects: May cause skin irritation (dryness and itching) and eye irritation (burning, redness, and impairment of vision).

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: CO₂, Dry Chemicals, Foam, Water

Unsuitable extinguishing media: Avoid high pressure media which could cause the formation of a potentially explosive dust-air mixture.

5.2 Special hazards arising from the substance or mixture

Heat may generate irritating vapours.

5.3 Advice for firefighters

Wear suitable breathing apparatus, flame and chemical resistant clothing, boots and gloves.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. Avoid generating dust/vapours.

6.2 Environmental precautions

Avoid any spillage from entering waterways, drains or sewage systems.

6.3 Methods and material for containment and cleaning up

For small spills: clean up using appropriate appliances. Standard absorbents can be used. For large spills: collect into closed containers for disposal. Dispose of in accordance with regulations.

6.4 Reference to other sections

Information on exposure controls/personal protection and disposal considerations can be found in Section 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practices. Protect against fire and explosion by avoiding sources of ignition. Where aerosols are created use suitable dust mask or breathing apparatus. Maintain good ventilation. Do not eat, drink or smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly sealed and dry. Stainless steel or polyethylene containers are preferred. Protect against moisture, ignition sources and incompatible materials. Elevated storage temperatures accelerates product degradation. Incompatible with strong oxidising agents. Avoid extended storage by using as soon as possible within designated shelf life.

7.3 Specific end use(s)

For use as a colour where permitted. It is the user's responsibility to ensure that the conditions and possible uses of the product conform to local laws and regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Product is classified as an irritant.

Hazardous chemical: Potassium Hydroxide

Exposure limits (OSHA): 2 mg/m³

Exposure limits (ACGIH): 2 mg/m³

8.2 Exposure controls

Appropriate engineering controls: Keep airborne concentration of product low by enclosing production processes whenever possible. An eyewash and safety shower should be readily available.

Eye/face protection: Wear face shield. An eyewash and safety shower should be readily available.

Hand Protection: Wear protective gloves tested to relevant standards (e.g. Europe: EN374, US: F739, As/NZS: 2161).

Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity, and specific local conditions. Always seek advice from glove suppliers. Contaminated gloves should be replaced. For prolonged contact, gloves with at least 0.7 mm in thickness and breakthrough time of more than 480 minutes are recommended. For short-term contact, gloves with at least 0.4 mm in thickness and breakthrough time of more than 30 minutes are recommended. Recommended glove material includes butyl rubber, fluorocarbon rubber, nitrile rubber, chloroprene rubber or neoprene.

Body/skin protection: Special clothing is not normally necessary when manufacturing or handling this product within a closed system. Wear chemical resistant full body coveralls whenever there is a possibility of splash or appreciable contact during manufacturing or handling.

Respiratory protection: Work in well ventilated area. In case of insufficient ventilation, wear suitable breathing apparatus.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Yellow-orange to orange liquid

Odour: Characteristic

Odour Threshold: Not established

pH: 7 – 13

Melting Point: Not established

Boiling Point: >99°C (210°F)

Flash Point: >99°C (210°F)

Evaporation Rate: Not established



Flammability: Not established
Upper/Lower Flammability: Not established
Vapour Pressure: Not established
Vapour Density: Not established
Relative Density: 1.0 – 1.5
Solubility: Water
Partition Coefficient: Not established
Auto-Ignition Temperature: Not established
Decomposition Temperature: Not established
Viscosity: Not established
Explosive Properties: Not established
Oxidising Properties: Not established
9.2 Other information

No data available

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No hazardous reactions occur under normal conditions of use and storage as indicated.

10.2 Chemical stability

This product is stable if stored and handled as indicated.

10.3 Possibility of hazardous reactions

No hazardous reactions occur under normal conditions of use and storage as indicated.

10.4 Conditions to avoid

May degrade in light. Avoid extended storage by using as soon as possible within designated shelf life.

10.5 Incompatible materials

Avoid strong acids, bases, and oxidising agents.

10.6 Hazardous decomposition products

If heated to decomposition may emit acrid smoke and irritating fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Oral toxicity: Based on available data, the classification criteria are not met.

Dermal toxicity: Based on available data, the classification criteria are not met.

Inhalation toxicity: Based on available data, the classification criteria are not met.

Skin corrosion/irritation:

Skin Irritant Category 2

Serious eye damage/irritation:

Eye Irritant Category 2.

Respiratory or skin sensitisation:

Data lacking.

Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

Carcinogenicity:

Based on available data, the classification criteria are not met.

Substance(s) listed on IARC Monograph: Not applicable.

Substance(s) listed as OSHA Carcinogen(s): Not applicable.

Substance(s) listed as NIOSH Carcinogen(s): Not applicable.

Substance(s) listed on the NTP Report on Carcinogens (ROC): Not applicable.

Reproductive toxicity:

Based on available data, the classification criteria are not met..

STOT-single exposure:

Data lacking.

STOT-repeated exposure:

Data lacking.

Aspiration hazard:

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties:



The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

May lead to a local change in the pH of an aquatic environment which may have adverse effects on aquatic organisms.

12.2 Persistence and degradability

No specific data available.

12.3 Bioaccumulative potential

No specific data available.

12.4 Mobility in soil

The product is water soluble and may spread in water systems.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either PBT or vPvB at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product may contribute to biological oxygen demand (BOD) and chemical oxygen demand (COD).

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of this product in accordance with International, National, Federal, State, and local regulations. Avoid spillage from entering waterways, drains or sewage as product may contribute to biological oxygen demand (BOD) and chemical oxygen demand (COD).

SECTION 14. TRANSPORT INFORMATION

14.1 UN number

ADR UN number: Not classified as a dangerous good under transport regulations.
RID UN number: Not classified as a dangerous good under transport regulations.
ADN UN number: Not classified as a dangerous good under transport regulations.
IMDG UN number: Not classified as a dangerous good under transport regulations.
IATA/ICAO UN number: Not classified as a dangerous good under transport regulations.

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not classified as a dangerous good

14.4 Packing group

Not classified as a dangerous good

14.5 Environmental hazards

Not classified as a dangerous good

14.6 Special precautions for user

Not classified as a dangerous good

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

There are no special transportation requirements for this product. This product is not classified as hazardous under the US Department of Transportation (DOT) regulations. Further, in that the DOT regulations follow the recommendations on the Transport of Dangerous Goods by the United Nations Committee of Experts, determination that this product is not dangerous also applies to international shipments under those regulations and tariffs which follow the UN recommendations, eg. IMDG (ocean transport) and IATA (air transport).

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EUROPEAN UNION (EU): No Chemical Safety Assessment has been carried out for this substance/mixture.
REACH - Candidate List of Substances of Very High Concern of Authorisation (Article 59): Neither banned nor restricted.
Canada: Domestic Substances List (DSL): The components of this product are listed on the DSL list or are exempt.
Information for other International Inventories available upon request.



Classification According To GHS: Skin irritant Category 2, Eye irritant Category 2

Classification According to OSHA Hazard Communication Standard; 29 CFR Part 1910.1200: Skin irritant Category 2, Eye irritant Category 2

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this substance/mixture by the manufacturer.

SECTION 16. OTHER INFORMATION

Versions of this document dated previous to the revision date on this document are no longer valid. The above information was prepared based on our present-day knowledge from current and reputable sources, however the data provided herein without any warranty, expressed or implied, regarding its correctness or accuracy. The information contained in this safety data sheet does not constitute an assessment of workplace risks. It is the users' responsibility to ensure safe conditions for handling, storage and disposal of this product and to assume liability for loss, injury, damage, or expense resulting from improper use of this product. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user. The information herein is intended to provide a general guidance for the health and safety of the handling, storage, and use of the product.

The following sections have been amended from the previous version(s): Update to Format

Abbreviations:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS No: Chemical Abstract Service Number (division of the American Chemical Society)

CLP: Classification, Labelling, Packaging

CO₂: Carbon Dioxide

DNEL: Derived No Effect Level

EC: European Commission

EC No: The EINECS, ELINCS or NLP, is the official number of the substance within the European Union.

EINECS: European Inventory of Existing Commercial Chemical Substances

EU: European Union

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IBC Code: International Bulk Chemical Code

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

NIOSH: National Institute for Occupational Safety and Health

NTP: National toxicology program

OSHA: Occupational Safety and Health Administration

PNEC: Predicted No Effect Concentration

PBT: Persistent, Bioaccumulative and Toxic

P.R. China: People's Republic of China

REACH: Registration, Evaluation, Authorisation, and restriction of Chemicals

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STEL: Short Term Exposure limit

STOT: Specific Target Organ Toxicity

TLV: Threshold Limiting Value

TWA: 8-hour Time Weighted Average given for that substance in any 8-hour work shift of a 40-hour work week.

vPvB: very Persistent and very Bioaccumulative

Training advice: The product should only be handled by trained operators.

SAFETY DATA SHEET PREPARED BY

DDW The Color House, Dec 2022

**IN CONFORMITY WITH (EC) 1907/2006 (REACH) AS AMENDED AND, (EC) 1272/2008 (CLP) REGULATIONS
AS WELL AS 29 CFR 1910.1200 OSHA STANDARDS.**