



Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Westland Hydrangea Colourant

Version: Revision date: 19.01.2018

Print date: 19th January 2018

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier: Westland Hydrangea Colourant

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

Relevant identified uses Fertiliser supplement

1.3 Details of the supplier of the safety data sheet:

Supplier: Westland Horticulture Ltd
14 Granville Industrial Estate
Granville Road
Dungannon
County Tyrone
BT70 1NJ

Email customerservice@WestlandHorticulture.com

1.4 EMERGENCY TELEPHONE NUMBER: +44 1480 443789 (UK) 24hrs

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture According to Regulation (EC) No 1272/2008:

Eye Damage 1

2.2 Label Elements According to Regulation (EC) No 1272/2008:

Hazard Pictograms



Signal Word

Danger



Safety Data Sheet

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Version: Revision date: 19.01.2018

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Hazard Statements H31 Causes serious eye damage

Precautionary Statements

P101 Read label before use

P102 Keep out of reach of children

P103 If medical advice is needed, have product label or container at hand

P280 Wear eye/face protection

P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

Supplemental Hazard information: None

Special rules for supplemental label elements for certain mixtures: None

Additional labelling: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 N/A

3.2

Description Combination of Iron and Aluminium salts to acidify the soil and produce blue flowers

Hazardous Ingredients

Ingredient	Identifiers	Concentration %W/W	Warning Symbols	Regulation (EC) No 1272/2008 (CLP)
Ferrous Sulphate	CAS 7782-63-0 EC: 231-753-5	7 %		Acute Tox, 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319
Aluminium sulphate hexadecahydrate	CAS: 10043-01-03 EC 233-135-0	93 %		Eye Dam 1; H318

Additional information:



Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Westland Hydrangea Colourant

Version: Revision date: 19.01.2018

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Full text of H- and EUH-phrases: see SECTION 16.

This mixture does not contain further substances fulfilling the criteria of hazard class "acute toxicity" according to CLP regulation.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Information: Have the product container, label or Material Safety Data Sheet with you when calling a poison control center or physician, or going for treatment.

Inhalation: Move person to fresh air.
Keep patient warm and at rest.
Get medical attention if symptoms occur.

Skin Contact: Take off all contaminated clothing and shoes.
Wash off with plenty of water.
Get medical attention if irritation develops or persists.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses and continue flushing.
Immediately call a poison centre or doctor/physician.

Ingestion: Wash out mouth with water.
Seek medical advice.

4.2 Most Important symptoms and effects, both acute and delayed:

No data.

4.3 Indication of any immediate medical attention and special treatment needed

In case of shortness of breath, give oxygen. Keep patient warm. Keep under observation. Symptoms may be delayed. Additional medical guidance is available to doctors from the National Poisons Information Service.



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5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media:

Water spray, CO₂ or dry powder.

5.2 Special hazards arising from the substance or mixture:

Under intense heat, product decomposition will release toxic sulphur oxide fumes.

5.3 Advice for Fire Fighters:

Wear full protective clothing and self-contained breathing apparatus. Contain contaminated run-off.

Additional Information:

Do not allow run-off from fire fighting to enter drains or water courses.

In a fire or if heated, pressure increase will occur and the container may burst. Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Ensure adequate ventilation.

Wear a suitable dust mask if dust is generated above exposure limits.

Wear eye protection.

Wash hands and exposed skin after handling.

Keep unnecessary and unprotected personnel from entering the area.

6.2 Environmental Precautions:

Do not allow to enter drains or sewers.

6.3 Methods and Materials for Containment and Cleaning Up:

Sweep up spills carefully to minimise dust. Transfer to heavy duty plastic or drums for disposal according to local / national regulations.

6.4 Reference to other sections



Safety Data Sheet

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Trade name: Westland Hydrangea Colourant

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Additional Information: If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling:

- Ensure good ventilation at workplace.
- Ensure good hygiene practices are observed.
- Do not eat, drink or smoke when handling this product.
- Do not breathe dust.
- Avoid contact with skin and eyes.
- Ensure workplace exposure limits are observed.
- Do not block stack pallets.

7.2 Conditions for safe storage, including any incompatibilities

- Store in original containers, tightly closed in a secure, well ventilated, cool but frost-free, dry area.
- Keep out of the reach of children.
- Keep away from food, drink and animal feed stuffs.
- Keep in a separate stack from herbicides.

7.3 Specific End Uses: Fertiliser

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

8.2



Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

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8.2.1 Occupational exposure limits:

The OEL (Occupational Exposure Limit) for aluminium sulphate 17% is 2mg/m³ in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average).

DNELs

Figures stated are aluminium sulphate 17%

Worker

Acute systemic effects, oral: 5.7 mg/kg/d

Consumer

Acute systemic effects, oral: 3.7 mg/kg/d

Figures stated are for ferrous sulphate.7H₂O

Consumer

Acute systemic effects, oral: (FeSO₄*7H₂O) 1.4 mg/kg/d

Acute systemic effects, dermal: (FeSO₄*7H₂O) 1.4 mg/kg/d

Acute systemic effects, inhalative: (FeSO₄*7H₂O) 2.5 mg/m³

Systemic long-term effects, oral: (FeSO₄*7H₂O) 1.4 mg/kg/d

Systemic long-term effects, dermal: (FeSO₄*7H₂O) 1.4 mg/kg/d

Systemic long-term effects, inhalative: (FeSO₄*7H₂O) 2.5 mg/m³

Worker

Acute systemic effects, dermal: (FeSO₄*7H₂O) 2.8 mg/kg/d

Acute systemic effects, inhalative: (FeSO₄*7H₂O) 9.9 mg/m³

Systemic long-term effects, dermal: (FeSO₄*7H₂O) 2.8 mg/kg/d

Systemic long-term effects, inhalative: (FeSO₄*7H₂O) 9.9 mg/m³

Consumer

Acute systemic effects, oral: (FeSO₄*7H₂O) 1.4 mg/kg/d

Acute systemic effects, dermal: (FeSO₄*7H₂O) 1.4 mg/kg/d

Acute systemic effects, inhalative: (FeSO₄*7H₂O) 2.5 mg/m³

Systemic long-term effects, oral: (FeSO₄*7H₂O) 1.4 mg/kg/d

Systemic long-term effects, dermal: (FeSO₄*7H₂O) 1.4 mg/kg/d

Systemic long-term effects, inhalative: (FeSO₄*7H₂O) 2.5 mg/m³

PNECs

Not available for aluminium sulphate salts. The PNECs given in this section were derived based on the concentration which would cause a 10% increase above typical natural background levels of iron in soil and sediment. Thus the respective PNEC is equal to 110% of the typical natural background level of iron.



Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Westland Hydrangea Colourant

Version: Revision date: 19.01.2018

Print date: 19th January 2018

Water Iron is an essential trace element for fish, aquatic invertebrates and plants. A direct toxicity could not be demonstrated in tests. Therefore no PNEC was derived.

Sewage treatment plants (STP)

PNEC STP Fe: 500 mg/l;

Sediment PNEC Sediment (freshwater): Fe: 49.5g/kg;
PNEC Sediment (marine water): Fe: 49.5 g/kg;

Soil PNEC soil: Fe: 55.5 g/kg

Oral (food chain)

Iron is an essential trace element for fish, aquatic invertebrates and plants. A direct toxicity could not be demonstrated in tests. Therefore no PNEC was derived.

8.2 Exposure Controls

8.2.1 Appropriate engineering controls:

If air dust is generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

8.2.2 Personal protective equipment: The general personal protection measures of the chemical industry apply. The usual precautionary measures should be adhered to in the handling of the chemicals.

Respiratory Protection: Dust Mask FFP2. Not required if all workplace limits are observed and good ventilation is ensured.

Hand Protection: Requirements according to EN 420. Check protective gloves prior to each use of their proper condition. Preventive skin protection by use of skin protecting agents is recommended
Material of gloves: Polychloroprene recommended.
Penetration time of glove material: Protective gloves should be replaced at first sign of wear.

Eye Protection: Tightly sealed safety glasses.

Skin and Body Protection: Protective work clothing

8.2.3 Environmental exposure controls: No data



Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Westland Hydrangea Colourant

Version: Revision date: 19.01.2018

Print date: 19th January 2018

Consumer exposure control: No data

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Off white powder/granule

Physical state: solid

Colour: Off-white

Odour: None

Odour threshold: No data

9.2 Other information:



Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Westland Hydrangea Colourant

Version: Revision date: 19.01.2018

Print date: 19th January 2018

	Value	Concentration	Method	Temperature	Pressure	Remark
pH	Approx 3 at 5% w/w in water	--	--	20°C	--	--
Melting point/freezing point	--	--	--	--	--	--
Initial boiling point/boiling range	--	--	--	--	--	--
Flash point	--	--	--	--	--	--
Evaporation rate	--	--	--	--	--	--
Flammability (solid, gas)	--	--	--	--	--	--
Upper/lower flammability or explosive limits	--	--	--	--	--	--
Upper explosive limits	--	--	--	--	--	--
Lower explosive limits	--	--	--	--	--	--
Vapour pressure	--	--	---	--	--	--
Vapour density	--	--	--	--	--	--
Relative density	1.10 g/ml	--	--	20°C	--	--
Solubility(ies)	Soluble in water	--	--	--	--	--
Partition coefficient: n-octanol/water	--	--	--	--	--	--
Auto-ignition temperature	---	--	--	--	--	--
Decomposition temperature	--	--	--	--	--	--
Viscosity	--	--	--	--	--	--
Viscosity, dynamic	--	--	--	--	--	--
Viscosity, cinematic	--	--	--	--	--	--
Explosive properties	--	--	--	--	--	--
Oxidising properties	--	--	--	--	--	--

Physical hazards: No Data

Flammable aerosols



Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Westland Hydrangea Colourant

Version: Revision date: 19.01.2018

Print date: 19th January 2018

Justification for data waiving:

Safety characteristics:

	Value	Result	Method	Remark
Content of flammable components	N/A			
Chemical heat of combustion				
Ignition distance				Testing is not required for foam aerosols.
Time equivalent				
Deflagration density				
Maximum flame height				Testing is not required for spray aerosols.
Flame duration				

Assessment / Classification: Based on available data, no classification is required

Flammable solids

Justification for data waiving:

Safety characteristics:

	Value	Method	Remark
Burning rate	N/A		
Burning rate with wetted zone			
Moisture content			

Assessment / Classification: Based on available data, no classification is required

Oxidising solids

Justification for data waiving:

Safety characteristics:

	Value	Method	Remark
Preliminary test			
Mean burning time of test mixture			
Mean burning time of reference mixture			

Assessment / Classification: Based on available data, no classification is required



Safety Data Sheet

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Version: Revision date: 19.01.2018

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10. STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical Stability: Stable under normal conditions of storage, handling and use.

10.3 Hazardous Reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Reacts with strong alkalis to release ammonia.

10.4 Conditions to Avoid: Store away from heat.

10.5 Incompatible Materials: Strong oxidizing agents.

10.6 Hazardous Decomposition: Decomposes at high temperatures producing toxic nitrogen and sulphur oxide fumes.

11. TOXICOLOGICAL INFORMATION

To the best of our knowledge physical, chemical and toxicological properties have not been fully investigated.

11.1 Information on toxicological effects

Acute Toxicity

Oral:

Oral LD50 ferrous sulphate 7720-78-7: 1389 mg/kg (rat)
Oral LD50 aluminium sulphate 10043-01-3: >2000 mg/kg (rat)
Dermal LD50 aluminium sulphate 10043-01-3: >2000 mg/kg (rat)

Skin Irritation:

Ferrous sulphate 7720-78-7: OECD 404: Irritant for skin and mucous membranes.
Aluminium sulphate 10043-01-3: No signs of dermal irritation.

Eye Damage/ Irritation:

Ferrous sulphate 7720-78-7: OECD: Irritant effect.
Aluminium sulphate 10043-01-3: OECD: Causes serious eye damage.

Respiratory or Skin Sensitization: OECD 429 (LLNA-test); No sensitizing effects.

Subacute to chronic toxicity:

Data of the Key Studies for iron sulphates and iron chlorides:

Oral NOAEL ferrous sulphate 7720-78-7: 57 – 65 mg Fe/kg/d (rat, 90 days) (not according to OECD)
Dermal NOAEL: no relevant data available
Inhalative NOAEC: no relevant data available



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Long Term Toxicity: There are no indications of CRM effects.

STOT- repeated exposure: No specific target organ toxicity according to the criteria defined in Regulation (EC) No 1272/2008.

Aspiration hazard No data, not an aspiration hazard.
Acute toxicity (by calculation) > 5000 mg/kg

Other Information: To the best of our knowledge physical, chemical and toxicological properties have not been fully investigated

12. ECOLOGICAL INFORMATION

12.1 Toxicity: Not classified as hazardous.

Aluminium sulphate 10043-01-3: LC50 Danio \geq 1000 mg/l 96 hrs
NOEL Danio \geq 1000 mg/l 96 hrs
EC50 Daphnia \geq 160 mg/l 48 hrs immobilization
NOEL Daphnia \geq 160 mg/l 48 hrs

Sediment toxicity: No data

Terrestrial toxicity: No data

Toxicity to soil macro-organisms except arthropods: No data

Toxicity to terrestrial arthropods: No data

Toxicity to terrestrial plants: No data

Toxicity to birds: No data

Assessment / Classification: Based on the available data no classification can be reached

12.2 Persistence and Degradability: No data

12.3 Bioaccumulative Potential: No data

12.4 Mobility in Soil: No data

12.5 PBT and vPvB assessment: Not classified

12.6 Other adverse effects: No data.



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Aluminium, iron, nitrogen and sulphur are important plant nutrients and can be found in significant quantities in some soils. Unlikely to present an environmental hazard from normal handling use.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of waste through a reputable waste disposal contractor in accordance with the Environmental Protection Act 1990.

Contaminated Packaging: Empty remaining contents. Completely empty containers can be put in the bin or disposed of in compliance with applicable local regulations. Do not reuse empty containers.

Additional information: None

14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA- DGR)
14.1 UN No.	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.2 UN Proper shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3 Transport hazard class(es)	Not dangerous goods	Not dangerous goods	Not dangerous goods	Not dangerous goods



Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

Trade name: Westland Hydrangea Colourant

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Print date: 19th January 2018

Hazard label(s)	Not goods dangerous	Not goods dangerous	Not dangerous goods	Not goods dangerous
14.4 Packing group	Not goods dangerous	Not goods dangerous	Not dangerous goods	Not goods dangerous
14.5 Environmental hazards	Not goods dangerous	Not goods dangerous	Not dangerous goods	Not goods dangerous

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Additional information None

15. REGULATORY INFORMATION

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

This product is classified and labelled according to the CLP Regulation (EC) No 1272/2008, the statutory instrument No. 716 2009 Chemicals (Hazard Information and Packaging) regulations and the EC Fertiliser Regulations 2003, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2 Chemical Safety Assessment: Chemical Assessments not undertaken for this material.

16. OTHER INFORMATION

16.1 Indication of changes

16.2 Abbreviations and Acronyms

ADR	International Carriage of Dangerous Goods by Road
CAS No	Chemicals Abstract Service Registry Number Directive 67/548/EEC
ADR	International Carriage of Dangerous Goods by Road
CAS No	Chemicals Abstract Service Registry Number Directive 67/548/EEC



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EC No	European Community Number for chemicals within EU regulations
IATA-DGR	Dangerous Goods Regulations by the International Air Transport Association
IMDG Code	International Maritime Dangerous Goods Code
PBT	Persistent, Bioaccumulative and Toxic Properties
Regulation (EC) No 1272/2008	Classification, Labelling and Packaging (CLP)
RID	International Transport of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative Properties

16.3 Key literature references and sources for data

16.4 Relevant R-, H- and EUH-phrases (number and full text):

Acute Tox 4;	Acute Toxicity, Category 4
Eye Dam 1;	Eye Damage, Category 1
Eye Irrit 2;	Eye Irritation, Category 2
Skin Irrit 2;	Skin Irritation, Category 2

16.5 Full texts of abbreviated H Statements referred to under Section 3:

H302	Harmful if swallowed
H315	Causes Skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation

16.6 Training advice: Follow the instructions

16.7 Further information

Before using this product, ensure that you read and understand its label

MSDS information:

This Safety Data Sheet is prepared in compliance with Regulation 1272/2008 and Annex I of the REACH regulation 453/2010.

This safety data sheet provides health and safety information. This product is to be used in applications with best use practice. Individuals handling this product should be informed under COSHH of the recommended safety precautions and should have access to this information. The product information in this data sheet is to the best of our knowledge correct as at the date of publication. Westland Horticulture Limited does not accept responsibility for damage caused by incorrect use of this information.

Training and related advice:

This document contains important information to ensure the safe storage, handling and use of this product. It is the responsibility of your organisation to ensure that the information contained in this document is communicated to the end user and that all necessary training to enable the product to be used correctly has been given.



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