

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** BOLT

**Product code:** 5376

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

**Use of substance / mixture:** Can be used as herbicide only.

**1.3. Details of the supplier of the safety data sheet**

**Company name:** Headland Agrochemicals

Rectors Lane

Pentre

Flintshire

CH5 2DH

United Kingdom

**Tel:** +44(0)1244 537370

**Fax:** +44(0)1244 532097

**Email:** [flintshire.enquiry@fmc.com](mailto:flintshire.enquiry@fmc.com)

**1.4. Emergency telephone number**

**Emergency tel:** +44(0)1244 537370

(office hours only)

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CLP:** Aquatic Chronic 1: H410; -: EUH208; -: EUH401

**Most important adverse effects:** Very toxic to aquatic life with long lasting effects. Contains Tribenuron-methyl. May produce an allergic reaction. To avoid risks to human health and the environment, comply with the instructions for use.

**2.2. Label elements**

**Label elements:**

**Hazard statements:** H410: Very toxic to aquatic life with long lasting effects.

EUH208: Contains Tribenuron-methyl. May produce an allergic reaction.

EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

**Signal words:** Warning

**Hazard pictograms:** GHS09: Environmental



# SAFETY DATA SHEET

BOLT

Page: 2

**Precautionary statements:** P273: Avoid release to the environment.

P391: Collect spillage.

P501: Dispose of contents/container to hazardous or special waste collection point.

## 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

##### TRIBENURON-METHYL

EINECS	CAS	PBT / WEL	CLP Classification	Percent
401-190-1	101200-48-0	-	Skin Sens. 1: H317; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	50-70%

##### FLORASULAM

604-488-1	145701-23-1	-	Aquatic Chronic 1: H410; Aquatic Acute 1: H400	10-30%
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##### SODIUM ALKYLNAPHTHALENE SULPHONATE-FORMALDEHYDE CONDENSATE

-	577773-56-9	-	Eye Irrit. 2: H319	1-10%
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##### SODIUM METHYLNAPHTHALENE SULPHONATE

247-564-6	26264-58-4	-	Eye Irrit. 2: H319	1-10%
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##### LIGNOSULPHONIC ACID, SODIUM SALT, SULFOMETHYLATED

-	68512-34-5	-	Eye Irrit. 2: H319	1-10%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin.

Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Wash with soap and water. Consult a doctor if irritation develops.

**Eye contact:** Bathe the eye with running water for 15 minutes. Remove contact lenses, if present, after the first few minutes, then continue rinsing. Consult a doctor if irritation persists or problems with vision occur.

**Ingestion:** Do not induce vomiting. Wash out mouth with water. Drink several glasses of water or milk. If vomiting occurs, rinse mouth and drink fluids again. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

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# SAFETY DATA SHEET

BOLT

Page: 3

## 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** Sulphonylurea herbicides can cause lethargy, confusion, dizziness, seizures and coma on ingestion of large quantities.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** No data available.

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

**Immediate / special treatment:** Immediate medical attention is required in case of ingestion. Show this safety data sheet to the doctor in attendance. There is no specific antidote for exposure to this material. Treatment of exposure is as for a general chemical. Gastric lavage and/or administration of activated charcoal can be considered.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams. Use water spray to cool containers.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as nitrogen oxides, sulphur dioxide, carbon monoxide, carbon dioxide, hydrogen fluoride and various fluorinated organic compounds.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water run off. Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Refer to section 8 of SDS for personal protection details. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Eliminate all sources of ignition. Avoid and reduce dust formation as much as possible, if appropriate by moistening. In the case of large spills (1 ton or more), alert the appropriate authorities.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Wash waters must be prevented from entering surface water drains. Accidental release into water courses must be alerted to the appropriate regulatory body.

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# SAFETY DATA SHEET

BOLT

Page: 4

## 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Surface water drains within close vicinity of the spill should be covered. Small spills should be immediately swept up or vacuumed using equipment with high efficiency final filter. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Rinse the area with water and industrial detergent. Absorb wash liquid onto absorbent and transfer to suitable containers. Spills which soak into the ground should be dug up and placed in suitable containers. Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal. Refer to section 13 of SDS for suitable method of disposal.

## 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Material should be handled by mechanical means as much as possible. Ensure there is sufficient ventilation of the area. Exhaust gases should be filtered or treated otherwise. For its use as a pesticide, look for precautions and personal protective measures on the officially approved label or other official guidance or policy in force. If these are lacking, see section 8 of this SDS. Remove contaminated clothing immediately after handling, then wash thoroughly and put on clean clothes. Clean protective clothing and protective equipment with soap and water after use. Collect all wash water and dispose of as hazardous waste.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Keep container tightly closed. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor. The room should only be used for storage of chemicals, and without access to unauthorised persons or children. Food, drink, feed and seed should not be present. A hand wash station should be available.

### 7.3. Specific end use(s)

**Specific end use(s):** This product is a registered pesticide, which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:** No data available.

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# SAFETY DATA SHEET

BOLT

Page: 5

## DNEL/PNEC Values

### Hazardous ingredients:

#### TRIBENURON-METHYL

Type	Exposure	Value	Population	Effect
DNEL	-	0.07 mg/kg.bw/day	-	Systemic
PNEC	Aquatic environment	0.1 µg/l	-	-

#### FLORASULAM

Type	Exposure	Value	Population	Effect
DNEL	-	0.05 mg/kg.bw/day	-	Systemic
PNEC	Aquatic environment	0.062 µg/l	-	-

## 8.2. Exposure controls

**Engineering measures:** When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping system non-hazardous before opening.

**Respiratory protection:** The product is not likely to present an airborne exposure concern during normal handling, but in the event of a discharge of the material which produces a heavy dust, workers should put on officially approved face mask or respiratory protection:  
Respiratory protection with universal filter type, including particle filter.

**Hand protection:** Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Waterproof pants and apron of chemical resistant material or coveralls with polyethylene (PE) coating will be sufficient for short time exposure. Coveralls must be discarded after use if contaminated. In cases of prolonged exposure, barrier laminate coveralls may be required.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Granules

**Colour:** Brown

**Odour:** Weak musk-like odour

**Oxidising:** Non-oxidising (by EC criteria)

**Solubility in water:** Dispersible in water

**Boiling point/range°C:** (Decomposes)

**Part.coeff. n-octanol/water:** See section 12.3

**Autoflammability°C:** >400

**Relative density:** 0.63 - 0.66 g/cm<sup>3</sup>

**pH:** 6.3 (1% aq. disp.)

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# SAFETY DATA SHEET

BOLT

Page: 6

## 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

### 10.5. Incompatible materials

**Materials to avoid:** No data available.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes. See subsection 5.2.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	>2000	mg/kg
DERMAL	RAT	LD50	>5000	mg/kg
INHALATION	RAT	4H LC50	>5.08	mg/l

#### Hazardous ingredients:

##### TRIBENURON-METHYL

DERMAL	RAT	LD50	>2000	mg/kg
INHALATION	RAT	4H LC50	>6.5	mg/l
ORAL	RAT	LD50	>5000	mg/kg

##### FLORASULAM

DERMAL	RAT	LD50	>2000	mg/kg
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# SAFETY DATA SHEET

BOLT

Page: 7

INHALATION	RAT	4H LC50	>5	mg/l
ORAL	RAT	LD50	>5000	mg/kg

## SODIUM ALKYLNAPHTHALENE SULPHONATE-FORMALDEHYDE CONDENSATE

ORAL	RAT	LD50	>5000	mg/kg
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## SODIUM METHYLNAPHTHALENE SULPHONATE

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	5620	mg/kg

### Symptoms / routes of exposure

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** Sulphonylurea herbicides can cause lethargy, confusion, dizziness, seizures and coma on ingestion of large quantities.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** No data available.

## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity values:

Species	Test	Value	Units
RAINBOW TROUT ( <i>Oncorhynchus mykiss</i> )	96H LC50	>100	mg/l
DAPHNIDS ( <i>Daphnia magna</i> )	48H LC50	>100	mg/l
ALGAE ( <i>Raphidocelis subcapitata</i> )	72H ErC50	22	µg/l
DUCKWEED ( <i>Lemna gibba</i> )	7d ErC50	2.6	µg/l
DUCKWEED ( <i>Lemna gibba</i> )	7d NOAEC	0.52	µg/l
BEES ( <i>Apis mellifera</i> )	48H LD50 oral	>111	µg/bee
BEES ( <i>Apis mellifera</i> )	48H LD50 contact	>162	µg/bee

#### Hazardous ingredients:

##### TRIBENURON-METHYL

ALGAE ( <i>Raphidocelis subcapitata</i> )	72H ErC50	0.11	mg/l
DAPHNID ( <i>Daphnia magna</i> )	21d NOEC	120	mg/l
DAPHNID ( <i>Daphnia magna</i> )	48H EC50	894	mg/l
DUCKWEED ( <i>Lemna minor</i> )	7d EC50	0.0099	mg/l
RAINBOW TROUT ( <i>Oncorhynchus mykiss</i> )	21d NOEC	>560	mg/l

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# SAFETY DATA SHEET

BOLT

Page: 8

RAINBOW TROUT ( <i>Oncorhynchus mykiss</i> )	96H LC50	738	mg/l
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## 12.2. Persistence and degradability

**Persistence and degradability:** Tribenuron-methyl is not persistent in the environment. Primary degradation half-lives vary with circumstances, from a few days to weeks in aerobic water and soil. Its metabolites are considered as persistent. Florasulam is not readily biodegradable. It is not persistent in aerobic soil or aquatic systems but is degraded to its major degradate N-(2,6-difluorophenyl)-8-fluoro-5-hydroxy-[1,2,4]triazolo[1,5-c]pyrimidine-2-sulfonamide. This is more slowly biodegraded in soil or even stable in some aquatic systems, and more mobile than Florasulam. Degradation half lives of Florasulam vary with circumstances, 2 to 18 days in aerobic soil. Degradation is mainly microbiological. The product contains minor amounts of not readily biodegradable ingredients, which may not be degradable in waste water treatment plants.

## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** Florasulam: log Kow at 20°C: -1.22 at pH 7; 1.0 at pH 4; -2.06 at pH 10. Florasulam does not bioaccumulate. Bioconcentration factor (BCF) is <2.21. Tribenuron-methyl: Log Kow = 2.3 (pH 1.5); 2.25 (pH 4); 2.0 (pH 5); 1.25 (pH 6); -0.44 (pH 7). Does not bioaccumulate.

## 12.4. Mobility in soil

**Mobility:** Under normal conditions, Tribenuron-methyl is of high to intermediate mobility in soil. Under normal conditions, Florasulam is mobile in soil. It has a potential for leaching to groundwater.

## 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

## 12.6. Other adverse effects

**Other adverse effects:** No data available.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Waste that cannot be reused or chemically reprocessed can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

**Disposal of packaging:** Triple rinse (or equivalent) and offer for recycling or reconditioning. Do not discharge cleaning water to sewer systems. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials. Alternatively, packaging can be delivered to a licensed service for disposal of hazardous waste.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

[cont...]



# SAFETY DATA SHEET

BOLT

Page: 9

## Section 14: Transport information

### 14.1. UN number

UN number: UN3077

### 14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(TRIBENURON-METHYL; FLORASULAM)

### 14.3. Transport hazard class(es)

Transport class: 9

### 14.4. Packing group

Packing group: III

### 14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

### 14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: The product is not transported in bulk tankers.

## Section 15: Regulatory information

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

Specific regulations: Seveso category in Annex 1 to Dir. 2012/18/EU: dangerous for the environment. All ingredients in this product are covered by EU chemical legislation. Product Registration Number: MAPP 17363.

### 15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: EUH208: Contains <name of sensitising substance>. May produce an allergic reaction.  
EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

[cont...]

# SAFETY DATA SHEET

BOLT

Page: 10

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H410: Very toxic to aquatic life with long lasting effects.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.