



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2016/01/20

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

1.1. Product identifier

Trade name : **Thor**

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

Use : Herbicide

1.3. Details of the supplier of the safety data sheet

Nufarm UK Limited
Wyke Lane
Wyke
Bradford
West Yorkshire BD12 9EJ
United Kingdom
Telephone: +44 (0)1274 691234
Telefax: +44 (0)1274 691176
E-mail address: infouk@uk.nufarm.com

1.4. Emergency telephone number

+44 (0)1274 696603

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

EEC/99/45 :	Xi N	R43 - May cause sensitization by skin contact. R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
EG_1272/08 :	SkinSens.1 AquaticAcute1 AquaticChronic1	H317 - May cause an allergic skin reaction. H400 - Very toxic to aquatic life. H410 - Very toxic to aquatic life with long lasting effects.

2.2. Label elements

according directive 1999/45/EG

Pictogram:



Xi



N

- R43 - May cause sensitization by skin contact.
 R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S36/37 - Wear suitable protective clothing and gloves.
 S57 - Use appropriate container to avoid environmental contamination.
 S35 - This material and its container must be disposed of in a safe way.

REGULATION (EC) No 1272/2008

Pictogram:



GHS07



GHS09

Signal word: Warning

- H317 - May cause an allergic skin reaction.
 H410 - Very toxic to aquatic life with long lasting effects.
 EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.
- P280 - Wear protective gloves.
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention.
 P363 - Wash contaminated clothing before reuse.
 P391 - Collect spillage.
 P501 - Dispose of contents/ container to a licensed hazardous-waste disposal contractor



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- SP 1 - or collection site except for empty clean containers which can be disposed of as non hazardous waste.
- Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Water dispersible granules (WG)
Tribenuron-methyl 500 g/kg

3.2. Mixtures

Components:

Tribenuron methyl

CAS-No.: 101200-48-0
EINECS-No. / ELINCS No.: 401-190-1
REACH No.:
Concentration: 50.0 % (w/w)

Classification:

EG_1272/08 : SkinSens.1 H317 - May cause an allergic skin reaction.
AquaticAcute1 H400 - Very toxic to aquatic life.
AquaticChronic1 H410 - Very toxic to aquatic life with long lasting effects.
(M=100) - - -

Trisodium phosphate dodecahydrate

CAS-No.: 10101-89-0
EINECS-No. / ELINCS No.: 231-509-8
REACH No.: 01-2119489800-32
Concentration: 10% - 20% (w/w)

Classification:

EG_1272/08 : SkinIrrit.2 H315 - Causes skin irritation.
EyeIrrit.2 H319 - Causes serious eye irritation.
STOT_SE3 H335 - May cause respiratory irritation.

sodium carbonate

CAS-No.: 497-19-8
EINECS-No. / ELINCS No.: 207-838-8
REACH No.: 01-2119485498-19
Concentration: 1% - 10% (w/w)

Classification:

EG_1272/08 : EyeIrrit.2 H319 - Causes serious eye irritation.



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Lignin, Alkali, Reaction Products With Disodium Sulfite And Formaldehyde

CAS-No.: 105859-97-0

EINECS-No. / ELINCS No.:

REACH No.:

Concentration: 1% - 10% (w/w)

Classification:

EG_1272/08 : EyeIrrit.2 H319 - Causes serious eye irritation.

4. FIRST AID MEASURES

4.1. Description of first aid measures

- General advice : Never give anything by mouth to an unconscious person.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
- Skin contact : Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
- Inhalation : Move to fresh air. Artificial respiration and/or oxygen may be necessary. Consult a physician after significant exposure.
- Ingestion : Do not induce vomiting without medical advice. Obtain medical attention. If conscious, drink plenty of water.

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

- Symptoms : No information available.

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

- Treatment : Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

- Suitable extinguishing media : Water spray, Dry chemical, Carbon dioxide (CO₂), Foam
- Extinguishing media which : High volume water jet



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shall not be used for safety reasons

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : In the event of fire (NO_x,CO_x,SO₂) may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters : Wear self contained breathing apparatus for fire fighting if necessary.

Further Information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Further Information : (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Keep people away from and upwind of spill/leak. Avoid dust formation. (see Chapter 8) Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Pick up and arrange disposal without creating dust. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). If spill area is on ground near valuable plants or trees, remove 5 cm of top soil after initial clean-up.

Additional advice : Never return spills in original containers for re-use.



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6.4. Reference to other sections

see Chapter 13

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice : Provide for appropriate exhaust ventilation and dust collection at machinery. Use only clean equipment. Do not breathe vapours or spray mist. Avoid contact with skin and eyes. Wear personal protective equipment. Do not get on skin or clothing. Do not breathe vapours/dust. Prepare the working solution as given on the label(s) and/or the user instructions. Use prepared working solution as soon as possible - Do not store. Wash thoroughly after handling.

Advice on protection against fire and explosion : Keep away from heat and sources of ignition. Avoid dust formation in confined areas. During processing, dust may form explosive mixture in air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep out of reach of children.

Advice on common storage : Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

none

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters
(EH40/2005 Workplace exposure limits)

Components	CAS-No.	National occupational exposure limits	Note
Tribenuron methyl	101200-48-0		no classification available
Trisodium phosphate dodecahydrate	10101-89-0		no classification available
sodium carbonate	497-19-8		no classification available
Lignin, Alkali, Reaction Products With Disodium Sulfite And Formaldehyde	105859-97-0		no classification available



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8.2. Exposure controls

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required. Ensure adequate ventilation, especially in confined areas.
- Hand protection : PVC or nitrile-rubber gloves, The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it., The suitability for a specific workplace should be discussed with the producers of the protective gloves., Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough., Before removing gloves clean them with soap and water.
- Eye protection : Safety glasses with side-shields conforming to EN166
- Skin and body protection : Full protective suit, Wear rubber boots.
- Hygiene measures : When using, do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and immediately after handling the product. Avoid contact with the skin and the eyes.
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

- Form : solid granular
- Colour : light brown
- Odour : mild
- : no data available
- Flash point : not applicable
- Ignition temperature : no data available
- Explosivity : Not explosive
- Upper explosion limit : no data available



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Lower explosion limit : no data available

Vapour pressure : no data available

Density : no data available

Bulk density : 640 kg/m³

Water solubility : completely soluble

pH : 8.9
at 10 g/l (20 °C)

Partition coefficient: n-
octanol/water : not applicable

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

no data available

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.
No decomposition if stored and applied as directed.

10.4. Conditions to avoid

No decomposition if stored and applied as directed., Avoid moisture.

10.5. Incompatible materials to avoid



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none

10.6. Hazardous decomposition products

Sulphur oxides

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

- Acute oral toxicity : LD50 rat
Dose: > 5,000 mg/kg
- Acute dermal toxicity : LD50 rat
Dose: > 5,000 mg/kg
Method: OECD Test Guideline 402
- Acute inhalation toxicity : LC50 rat
Exposure time: 4 h
Dose: > 6 mg/l
Test substance: (tribenuron-methyl)
- Skin irritation : rabbit
Result: No skin irritation
Method: OECD Test Guideline 404
- Eye irritation : rabbit
Result: No eye irritation
Method: OECD Test Guideline 405
- Sensitisation : Maximisation Test Guinea-pig
Result: May cause sensitization by skin contact.
Method: Maximisation Test
- Mutagenicity : Did not show mutagenic effects in animal experiments.
- Carcinogenicity : Did not show carcinogenic effects in animal experiments.
- Reproductive toxicity : No toxicity to reproduction

12. ECOLOGICAL INFORMATION



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12.1. Toxicity

Toxicity to fish : static test LC50 *Oncorhynchus mykiss* (Rainbow trout)
Dose: > 120 mg/l
Testing period: 96 h
Method: OECD Test Guideline 203

NOEC *Oncorhynchus mykiss* (Rainbow trout)
Dose: > 560 mg/l
Testing period: 21 d
Test substance: (tribenuron-methyl)

Toxicity to daphnia : EC50 *Daphnia*
Dose: > 120 mg/l
Testing period: 48 h
Method: OECD Test Guideline 202

NOEC *Daphnia magna* (Water flea)
Dose: > 120 mg/l
Testing period: 21 d

Toxicity to algae : ErC50 *Pseudokirchneriella subcapitata* (green algae)
Dose: > 0.08 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50 *Lemna gibba* (Duckweed)
Dose: 0.0055 mg/l
Exposure time: 14 d

12.2. Persistence and degradability

Biodegradability : Not readily biodegradable.

Stability in soil : DT50: 5 - 20 d

Additional advice : no data available

12.3. Potential bioaccumulation

Bioaccumulation : Does not bioaccumulate.

12.4. Mobility in soil

no data available



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12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)., This mixture contains substances considered to be persistent, bioaccumulating and toxic (PBT).

12.6. Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

According to European Directive 2000/532/EC as amended :

Waste Code : 02 01 08 (agrochemical waste containing dangerous substances)

13.1. Waste treatment methods

Product : Dispose of product and packaging in accordance with the "Code of practice for using plant protection products". A DEFRA publication

Contaminated packaging : Do not re-use empty containers. Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1. UN number

UN3077

14.2. Proper shipping name

UN3077 Environmentally hazardous substance, solid, n.o.s.(tribenuron-methyl)

14.3. Transport hazard class(es)

ADR/RID :
Class : 9

IMDG :
Class : 9

IATA-DGR :
Class : 9



14.4. Packaging group

ADR/RID : III
IMDG : III
IATA-DGR : III

14.5. Environmental hazards

IMDG
Marine Pollutant : Y

14.6. Special precautions for user

none

15. REGULATORY INFORMATION

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

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

15.2. Chemical Safety Assessment

none

16. OTHER INFORMATION

Print Date : 2016/01/20

The date format YYYY/MM/DD is used according to ISO 8601.
(Alterations are indicated in the left hand margin by: ||)



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The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.