



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2012/09/10

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 R43 - May cause sensitization by skin contact.
N R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

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 granule
 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.
EEC/67/548 :		R43 - May cause sensitization by skin contact.
	N	R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Trisodium phosphate dodecahydrate

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

Classification:

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



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2012/09/10

EEC/67/548 : SkinIrrit.2
Xi H315 - Causes skin irritation.
R36/38 - Irritating to eyes and skin.

sodium carbonate

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

Classification:

EG_1272/08 : EyeIrrit.2 H319 - Causes serious eye irritation.
EEC/67/548 : Xi R36 - Irritating to eyes.

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.
EEC/67/548 : Xi R36 - Irritating to eyes.

4. FIRST AID MEASURES

4.1. Description of first aid measures

- 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.



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2012/09/10

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : Water spray, Dry chemical, Carbon dioxide (CO₂)

Extinguishing media which shall not be used for safety reasons : High volume water jet

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Special protective equipment for fire-fighters : 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.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. (see Chapter 8)

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal. 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.

6.4. Reference to other sections



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2012/09/10

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. Do not breathe vapours or spray mist. Wear personal protective equipment.

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 uses

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

8.2. Exposure controls

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection : PVC or nitrile-rubber gloves

Eye protection : Goggles, , or:, Safety glasses



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2012/09/10

Skin and body protection : Protective suit

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Form : solid granular
Colour : light brown
Odour : mild

Flash point : not applicable

Bulk density : 571 kg/m³

Water solubility : completely soluble

pH : 8.9
at 10 g/l (20 °C)

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.



10.4. Conditions to avoid

No decomposition if stored and applied as directed.

10.5. Incompatible materials to avoid

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

Acute inhalation toxicity : LC50 rat
Exposure time: 4 h
Dose: > 6 mg/l
Test substance: (tribenuron-methyl)

Skin irritation : rabbit
Result: No skin irritation

Eye irritation : rabbit
Result: No eye irritation

Sensitisation : Maximisation Test Guinea-pig
Result: May cause sensitization by skin contact.

Mutagenicity : Did not show mutagenic effects in animal experiments.

Carcinogenicity : Did not show carcinogenic effects in animal experiments.



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2012/09/10

12. ECOLOGICAL INFORMATION

12.1. Toxicity

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

Toxicity to daphnia : EC50 *Daphnia*
Dose: > 120 mg/l
Testing period: 48 h

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

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

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



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2012/09/10

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 Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF 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



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Thor

Version 1 (UK)

Issuing date: 2012/09/10

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 : 2012/09/10

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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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