SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : HIATUS

Product code : FH-045 - Thifensulfuron-methyl 400g/kg + Tribenuron-methyl 150g/kg WG -

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

1.2.1. Relevant identified uses

Main use category : Professional use

Use of the substance/preparation : Agriculture Herbicide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Rotam Europe Ltd
Hamilton House
Mabledon Place
London WC1H 9BB
Tel : +44 020 7953 0447
msds@rotam.com

1.4. Emergency telephone number

Emergency number : NHS 111: 111 (England and Wales)
NHS 24 : 111 (Scotland)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

N; R50/53

Full text of R-phrases: see section 16

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

Aquatic Chronic 1; H410

Aquatic Acute 1 ; H400

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard symbols :

GHS 09

Signal word (CLP) : Warning

Hazard statements (CLP) : H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) : P273 - Avoid release to the environment
P391 - Collect spillage
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

EUH phrases : 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

PPP safety precautions : SP 1 - 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)
SPe3 - To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Thifensulfuron-methyl	(CAS No.) 79277-27-3 (EC index no) 016-096-00-2	40	N; R50/53
Tribenuron-methyl	(CAS No.) 101200-48-0 (EC no) 401-190-1 (EC index no) 607-177-00-9	15	Xi, R43 N; R50/53
Mixture of Alkylnaphthalene sulfonate, sodium salt and Sodium dioctyl sulphosuccinate		1 - 5	Xi, R38, R41
Mixture of Sulfonated aromatic polymer, sodiumsalt and Sodium dioctyl sulphosuccinate		1 - 5	Xi, R38, R41
Sulfonated aromatic polymer, sodiumsalt		5 - 15	Xi, R36/38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Thifensulfuron-methyl	(CAS No.) 79277-27-3 (EC index no) 016-096-00-2	40	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Tribenuron-methyl	(CAS No.) 101200-48-0 (EC no) 401-190-1 (EC index no) 607-177-00-9	15	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Mixture of Alkylnaphthalene sulfonate, sodium salt and Sodium dioctyl sulphosuccinate		1 - 5	Skin irrit 2, H315 Eye dam. 1, H318
Mixture of Sulfonated aromatic polymer, sodiumsalt and Sodium dioctyl sulphosuccinate		1 - 5	Skin irrit 2, H315 Eye dam. 1, H318
Sulfonated aromatic polymer, sodiumsalt		5 - 15	Skin irrit 2, H315 Eye irrit 2, H319

Full text of R-, H- and EUH-phrases: see section 16

4.1. Description of first aid measures

First-aid measures general : When symptoms occur: Call a physician or poison control center immediately.

First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area.

First-aid measures after skin contact : When symptoms occur: rinse immediately with plenty of water.

First-aid measures after eye contact : Rinse eyes with plenty of water.

First-aid measures after ingestion : Rinse mouth and then drink plenty of water. DO NOT induce vomiting. Seek medical advice.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

Unsuitable extinguishing media : High volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NOx).

Explosion hazard : Product is not explosive.

Reactivity : The product is stable at normal handling- and storage conditions.

5.3. Advice for firefighters

Precautionary measures fire : Wear self-contained breathing apparatus and protective suit (see item 8).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear appropriate personal protective equipment (PPE) : coverall, boots, gloves.

6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment.

Emergency procedures : Avoid contact with the releasing.

6.1.2. For emergency responders

Protective equipment	:	Wear appropriate personal protective equipment (PPE) : coverall, boots, gloves.

6.2. Environmental precautions

Do not allow material to contaminate ground water system. Prevent entry to sewers, drains and public waters. Notify authorities if product enters drains, sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Sweep or shovel spills into appropriate container for disposal.
Methods for cleaning up	:	Large spills: scoop solid spill into closing containers. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Do NOT get in eyes, on skin or on clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Store tightly closed in a dry, cool and well-ventilated place.
Incompatible materials	:	Oxidants, strong acids and strong bases.
Storage area	:	Store away from heat.

7.3. Specific end use(s)

Professional use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls	:	Ensure that there is a suitable ventilation system. Do NOT handle in a confined space.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Rod-shaped granules
Colour	:	Off-white
Odour	:	Mild characteristic odour
pH at 1%(aqueous dilution, emulsion or dispersion)	:	5.02 at 25°C (CIPAC MT 75.3)
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	Not relevant
Freezing point	:	Not relevant
Boiling point	:	Not relevant
Flash point	:	Not relevant
Self ignition temperature	:	Not relevant
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not flammable
Vapour pressure	:	Not relevant
Relative vapour density at 20 °C	:	Not relevant
Tap density	:	0.75 (CIPAC (F) MT 169)
Solubility	:	Not soluble
Log Pow	:	2.6 at pH = 5 (tribenuron-methyl) 1.06 at pH = 5 (thifensulfuron-methyl)
Log Kow	:	Not relevant
Viscosity, kinematic	:	Not relevant
Viscosity, dynamic	:	Not relevant
Explosive properties	:	Not explosive (EEC A14)
Oxidising properties	:	Not an oxidiser(EEC A17)
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable at normal handling- and storage conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

All heat sources.

10.5. Incompatible materials

Strong acids, strong bases and oxidation agents.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

HIATUS	
LD50 oral rat	> 2000 mg/kg, *(OECD 423)*
LD50 dermal rat	> 2000 mg/kg, *(OECD 402)*
LC50 inhalation rat (mg/l)	> 3.46 mg/L/4h, *(OECD 403)*

Irritation : Not irritating for the skin (OECD 404), not irritating for the eye (OECD 405)

Corrosivity : Not classified

Sensitisation : Not sensitizing (OECD 406)

Repeated dose toxicity : Not classified

Carcinogenicity : Thifensulfuron-methyl has no carcinogenic potential (SANCO/7577/VI/97-final, 12 December 2001)
Tribenuron-methyl not considered as carcinogenicity (Draft assessment report 2001, Volume 1)

Mutagenicity : Thifensulfuron-methyl has no genotoxic potential (SANCO/7577/VI/97-final, 12 December 2001)
Tribenuron-methyl has no genotoxic potential (Draft assessment report 2001, Volume 1)

Toxicity for reproduction : Thifensulfuron-methyl has no teratogenic potential (SANCO/7577/VI/97-final, 12 December 2001)
Tribenuron-methyl is not teratogenic(Draft assessment report 2001, Volume 1)

SECTION 12: Ecological information

12.1. Toxicity

HIATUS	
LC50 fishes 96h	> 100 mg/L, *(O. mykiss), (OECD 203)*
EC50 daphnia 48h	31.36 mg/L, (*D. magna), (OECD 202)*
EbC50 algae 72h	0.068 mg/L, (*P. subcapitata) (OECD 201)*
EC50 aquatic plant 14d	0.00093 mg/L, (*L. gibba), (OECD 221)*

12.2. Persistence and degradability

Thifensulfuron-methyl is not readily biodegradable.
Tribenuron-methyl is not readily biodegradable.

12.3. Bioaccumulative potential

Thifensulfuron-methyl	
Log Pow	< 3 (pH 5, 7, 9) (SANCO/7577/VI/97-final 12 December 2001)

Thifensulfuron-methyl is not potentially bioaccumulative.

Tribenuron-methyl	
Log Pow	< 3(at pH 5, 7, 9) (Draft assessment report 2001, Volume 1)

Tribenuron methyl is not potentially bioaccumulative.

12.4. Mobility in soil

Koc < 100, thifensulfuron-methyl is highly mobileKoc < 100, tribenuron-methyl is highly mobile

12.5. Results of PBT and vPvB assessment

Thifensulfuron-methyl and tribenuron-methyl do not fulfill the criterai of PBT substances.

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. : 3077

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Transport document description : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Thifensulfuron-methyl/Tribenuron-methyl), 9, III, (E)

14.3. Transport hazard class(es)

Class (UN) : 9

Hazard labels (UN) : 9

14.4. Packing group

Packing group (UN) : III

14.5. Environmental hazards

Dangerous for the environment :

Other information : No supplementary information available.

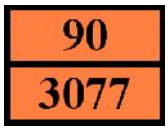
14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90

Classification code : M7

Orange plates :



Tunnel restriction code : E

Limited quantities (ADR) : LQ27

Excepted quantities (ADR) : E1

EAC code : 2Z

14.6.2. Transport by sea

Marine Pollutant

14.6.3. Air transport

Not applicable

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Full text of R-, H- and EUH-phrases::

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Skin Sens. 1	Skin sensitisation Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Irrit. 2	skin corrosion/irritation Category 2
H315	Causes skin irritation.
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R36/38	Irritating to eyes and skin
R38	Irritating to skin
R41	Risk of serious damage to eyes
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
N	Dangerous for the environment
Xi	Irritant

SDS EU (REACH Annex II)

Disclaimer: The information provided by Rotam Europe Ltd contained herein is given in good faith and correct to the best of our knowledge. However, the information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.