

# SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

Moraine

Revision date 17-Aug-2021 Version 3.01 Supersedes Date: 24-Dec-2020 Product Code(s)

HRB00850-44

Print Date 17-Aug-2021 AG-F5-200 EC ADM.03300.H.2.A 37953

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

#### 1.1. Product identifier

## **Moraine**

Other means of identification

Synonyms Fluroxypyr 200 EC

Pure substance/mixture Mixture

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

Recommended use Herbicide; Professional use Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier ADAMA Agricultural Solutions UK Ltd

Third Floor East

1410 Arlington Business Park

Theale READING RG7 4SA

Tel: 01635 860555 Fax: 01635 861555

For further information, please contact

E-mail address SDS@ADAMA.COM

1.4. Emergency telephone number

**Emergency Telephone** National Chemical Emergency Centre (UK):

Tel: 01865 407333 (24 hours)

National Poisons Information Centre (Republic of Ireland)

Tel: 01 809 2166 (8am - 10pm 7 days a week)

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

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

Aspiration hazard	Category 1 - (H304)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Chronic aquatic toxicity	Category 1 - (H410)

#### 2.2. Label elements

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

Contains Hydrocarbons, C10, aromatics, <1% naphthalene, Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt

## **Hazard pictograms**



Signal word Danger

Hazard statements H304 - May be fatal if swallowed and enters airways

H318 - Causes serious eye damage H336 - May cause drowsiness or dizziness

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements P102 - Keep out of reach of children

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing

P331 - Do NOT induce vomiting

P501 - Dispose of contents/ container to an approved waste disposal plant

**EU Specific Hazard Statements** EUH066 - Repeated exposure may cause skin dryness or cracking.

EUH401 - To avoid risks to human health and the environment, comply with the instructions

for use

Additional phrases for PPP SP1 - 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

PBT & vPvB The product does not contain any substance(s) classified as PBT or vPvB.

Endocrine Disruptor Information None known.

Persistent Organic Pollutants Not applicable.

# SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	CAS No	EC No	Index No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	REACH Registration Number
Hydrocarbons, C10, aromatics, <1% naphthalene	-	918-811-1		57 - 63	STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) (EUH066)			01-211946358 3-34-0005
Fluroxypyr-meptyl	81406-37-3	279-752-9	607-272-00-5	27 - 31	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M=1 M=1	No data available
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	90194-26-6	290-635-1 [932-231-6]		2 - 4	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)			01-211956059 2-37-0000
2-Ethylhexanol	104-76-7	203-234-3		< 2	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)			01-211948728 9-20

Acute toxicity estimates (ATEs) according to Part 3 of Annex VI to Regulation (EC) No 1272/2008 are indicated in this table, if available.

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

# **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

General advice	Immediate medical attention is rec	uired. Show this safet	y data sheet to the doctor in
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attendance.

Inhalation Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing

has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed

pulmonary edema may occur.

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep Eye contact

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present

and easy to do. Continue rinsing. Get immediate medical advice/attention.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Get medical attention if irritation develops and persists.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth

to an unconscious person. Do NOT induce vomiting. ASPIRATION HAZARD IF

C .

SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical

advice/attention.

Self-protection of the first aider

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required.

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

**Symptoms** Burning sensation. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation

of high vapor concentrations may cause symptoms like headache, dizziness, tiredness,

nausea and vomiting. Prolonged contact may cause redness and irritation.

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

Note to physicians Because of the danger of aspiration, emesis or gastric lavage should not be employed

unless the risk is justified by the presence of additional toxic substances.

# SECTION 5: Firefighting measures

## 5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Small Fire Dry chemical, CO2, water spray or regular foam

Large Fire Do not scatter spilled material with high pressure water streams

Dike fire-control water for later disposal Water spray, fog or regular foam

Move containers from fire area if you can do it without risk

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

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

A fire or explosion

Specific hazards arising from the

chemical

Containers may explode when heated

Keep product and empty container away from heat and sources of ignition. In the event of

fire, cool tanks with water spray.

5.3. Advice for firefighters

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

## **SECTION 6: Accidental release measures**

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

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See

section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Ensure

adequate ventilation.

Health risks Contact may cause burns to skin and eyes

Runoff from fire control may cause pollution

Fire may produce irritating, corrosive and/or toxic gases

Inhalation of material may be harmful

Some liquids produce vapors that may cause dizziness or suffocation

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Spill or Leak Avoid inhalation of asbestos dust

Do not touch or walk through spilled material

Prevent dust cloud

Stop leak if you can do it without risk

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

**Environmental precautions** Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage

if safe to do so.

6.3. Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far

ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert

absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat,

hot surfaces, sparks, open flames and other ignition sources. No smoking, Take precautionary measures against static discharges. Use with local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. In case of

insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not

> be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from

heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out

of the reach of children. Store away from other materials.

7.3. Specific end use(s)

Identified uses

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

# SECTION 8: Exposure controls/personal protection

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#### 8.1. Control parameters

**Exposure Limits** 

Derived No Effect Level (DNEL)
Predicted No Effect Concentration
(PNEC)

No information available. No information available.

8.2. Exposure controls

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand protection Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact

(recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5

mm), butyl rubber (0.7 mm).

**Skin and body protection**Use suitable protective clothing and equipment if required, such as safety goggles certified

to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water

repellent woven coverall with 65% polyester and 35 % cotton.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Contaminated work clothing should not

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid		
Color	: Yellowish clear		
Odor	: Aromatic		
Odor threshold	: No data available		
pH	: 4.7 - 5.7	CIPAC MT 75.3	solution (1%)
Melting point / freezing point °C	: No data available		
Boiling point / boiling range °C	: No data available		
Flash point °C	: 63	EEC A.9	
Evaporation rate	: No data available		
Flammability (solid, gas)	: Not applicable		
Upper/lower flammability or	: No data available		
explosive limits			
Vapor pressure kPa	: No data available		
Vapor density	: No data available		
Relative density	: 0.93 - 1.03	CIPAC MT 3.3	20 °C
Solubility(ies) mg/l	: No data available		
Partition coefficient Log Pow	:		See Section 12 for additional
			Ecological Information
Autoignition temperature °C	: 455	EEC A.15	

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**Decomposition temperature** °C : No data available

Kinematic viscosity mm2/s 40 °C : 4.6

Surface tension : No data available Particle Size : Not applicable

9.2. Other information

Bulk density g/ml : Not applicable

9.2.1. Information with regard to physical hazard classes
Explosive properties : Not an explosive
Oxidizing properties : Not oxidizing

9.2.2. Other safety characteristics

No information available

# SECTION 10: Stability and reactivity

10.1. Reactivity

**Reactivity** No information available.

10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

**Conditions to avoid** Heat, flames and sparks.

10.5. Incompatible materials

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

# SECTION 11: Toxicological information

## 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

		<u>Values</u>	<b>Species</b>	<u>Method</u>	Remarks
Oral LD50 mg/kg	:	> 2000	Rat	OECD 423	
Dermal LD50 mg/kg	:	> 2000	Rat	OECD 402	
Inhalation LC50 mg/l	:	> 5.15	Rat	OECD 403	
Skin corrosion/irritation	:	Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	:	Causes serious eye damage	Rabbit	OECD 405	
Sensitization	:	Not a skin sensitizer	Guinea pig	OECD 406	

## **Chronic toxicity**

Germ cell mutagenicity

**Chemical name** 

: Not classified Fluroxypyr-meptyl

Carcinogenicity

Chemical name

Fluroxypyr-meptyl : Not Carcinogenic

Reproductive toxicity .

Chemical name

Fluroxypyr-meptyl : Not toxic for the reproductive system

**STOT - Single Exposure** 

Chemical name

Fluroxypyr-meptyl : Not classified

**STOT - Repeated Exposure** 

Chemical name

Fluroxypyr-meptyl : Not classified

**Aspiration hazard** Chemical name

Fluroxypyr-meptyl : Not classified

STOT - single exposure May cause drowsiness or dizziness.

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

11.2.2. Other information

Algae 72-hour EC50 mg/l

Other adverse effects No information available.

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

Acute toxicity Species Method Remarks Values Fish 96-hour LC50 mg/l Oncorhynchus mykiss OECD 203 21.4 Crustacea 48-hour EC50 mg/l Daphnia magna **OECD 202** 21.4 P. subcapitata

Other plants EC50 mg/l 52.4 Lemna minor **OECD 221** 7 days

Values\_ Chronic aquatic toxicity Species Method Remarks

No data available Fish NOEC ma/l

Crustacea NOEC mg/l No data available

Algae NOEC mg/l P.subcapitata **OECD 201** 8.0 Other plants NOEC mg/l 5.81 Lemna minor **OECD 221** 

48.1

**Terrestrial Toxicity** Birds Oral LD50 mg/kg

**Chemical name** 

Bobwhite quail Fluroxypyr-meptyl : > 2000

Bees Oral LD50 µg/bee

**Chemical name** 

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**OECD 201** 

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Fluroxypyr-meptyl : > 100

12.2. Persistence and degradability

**Abiotic Degradation** Water DT50 days **Chemical name** 

Fluroxypyr-meptyl : 38.1

Soil DT50 days Chemical name

Fluroxypyr-meptyl : 1

**Biodegradation** Chemical name

Fluroxypyr-meptyl : No data available

12.3. Bioaccumulative potential

**Partition Coefficient** Values Method Remarks

(n-octanol/water) Log Pow

**Chemical name** 

Fluroxypyr-meptyl : 5.04 pH 7.0

**Bioconcentration factor (BCF)** 

**Chemical name** 

Fluroxypyr-meptyl : 26

12.4. Mobility in soil

Adsorption/Desorption Method Values Remarks

Chemical name

Fluroxypyr-meptyl : 19550 KOC

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

12.7. Other adverse effects

No information available.

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal.

Other information Waste codes should be assigned by the user based on the application for which the product

was used.

# **SECTION 14: Transport information**

ADR

14.1 UN number

14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl)

14.3 Transport hazard class(es) 14.4 Packing group

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9

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Description

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Fluroxypyr-meptyl), 9, III

14.5 Environmental hazard Yes

14.6 Special Precautions for Users

**Special Provisions** 274, 335, 601, 375

Classification code M6

**RID** 

**14.1 UN number** UN3082

**14.2 UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl)

14.3 Transport hazard class(es) 9
14.4 Packing group ||||

Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Fluroxypyr-meptyl), 9, III

Environmental hazard Yes

**Special Precautions for Users** 

14.5 Environmental hazard Yes

14.6 Special Precautions for Users

**Special Provisions** 274, 335, 375, 601

Classification code M6

**IMDG** 

14.1 UN number UN3082

**14.2 UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl)

**14.3 Transport hazard class(es)** 9 **14.4 Packing group** III

Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Fluroxypyr-meptyl), 9, III, Marine pollutant

14.5 Environmental hazard Yes

14.6 Special Precautions for Users
14.5 Marine pollutant P
Environmental hazard Yes

14.6 Special Precautions for Users

Special Provisions 274, 335, 969 EmS-No F-A, S-F

IMDG Stowage and segregation Category A No information available

Yes

14.7 Maritime transport in bulk No information available

according to IMO instruments

**IATA** 

**14.1 UN number** UN3082

14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr-meptyl)

14.3 Transport hazard class(es) 9
14.4 Packing group ||||

**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Fluroxypyr-meptyl), 9, III

14.5 Environmental hazard

14.6 Special Precautions for Users

Special Provisions A97, A158, A197

ERG Code 9L



<sup>\*</sup> Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less

for solids

# **SECTION 15: Regulatory information**

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

Trade name / designation Registration Number(s) Date

Not Applicable Not Applicable Not Applicable

#### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **Persistent Organic Pollutants**

Not applicable

#### 15.2. Chemical safety assessment

Chemical Safety Report A risk assessment was performed according to directive (EC) No. 91/414 or according to

regulation (EC) No. 1107/2009

# **SECTION 16: Other information**

#### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

H227 - Combustible liquid

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H400 - Very toxic to aquatic life

H402 - Harmful to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

#### Legend

SVHC: Substances of Very High Concern for Authorization:

#### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Revision date 17-Aug-2021

Reason for revision Changes made to the last version are labeled with this sign \*\*\*

#### **List of Acronyns**

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CAS Number - Chemical Abstracts Service number EINECS and ELINCS Number

EINECS - European Inventory of Existing Commercial Substances

ELINCS - European List of notified Chemical Substances

IATA - International Air Transport Association

ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG - International Maritime Dangerous Goods

LC50 - Lethal Concentration to 50 % of a test population

LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development

PBT - Persistent, Bioaccumulative and Toxic substance

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

STOT - Specific Target Organ Toxicity

vPvB - Very Persistent and Very Bioaccumulative

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

# Classification of the mixture

H304 - May be fatal if swallowed and enters airways

Classification based on test data
H318 - Causes serious eye damage

Classification based on test data

H336 - May cause drowsiness or dizziness

Classification based on Calculation method
H410 - Very toxic to aquatic life with long lasting effects

Classification based on Calculation method

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

#### **Disclaimer**

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.

Classification procedure

**End of Safety Data Sheet**