



HT MOULDABLE 175

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 8/11/2016 Revision date: 8/11/2016 Supersedes: 6/16/2015 Version: 4.00

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

1.1. Product identifier

Trade name : HT MOULDABLE 175
Product code : 380

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

1.2.1. Relevant identified uses

Use of the substance/mixture : For industrial use within high temperature applications

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Unifrax Limited
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Distributor

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T + 34 91 395 2279 - F + 34 91 395 2124

1.4. Emergency telephone number

Emergency number : Occupational Hygiene and CARE: Tel: + 44 (0) 1744 887603; Email: reachsds@unifrax.com; (8.15-17.10 h); Language : English

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

EUH-statements : EUH210 - Safety data sheet available on request
EUH208 - Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

HT MOULDABLE 175

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
aluminium oxide substance with national workplace exposure limit(s) (GB)	(CAS No) 1344-28-1 (EC no) 215-691-6	25 - 50	Not classified
Polycrystalline wools (PCW) substance with national workplace exposure limit(s) (GB)	(CAS No) 675106-31-7 (EC no) 614-074-2 (REACH-no) 01-2119456884-25-0000	20 - 25	Not classified
ethanediol, ethylene glycol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1 (REACH-no) 01-2119456816-28	5 - 10	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Assure fresh air breathing.
- First-aid measures after skin contact : Gently wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation persists, take medical advice.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Obtain emergency medical attention.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : The product is not flammable. Use extinguishing media appropriate for surrounding fire. Foam. Dry powder. Carbon dioxide. Water spray.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide. Aldehydes.

5.3. Advice for firefighters

- Firefighting instructions : Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Concerning personal protective equipment to use, see section 8.
- Emergency procedures : Prohibit unauthorized persons.

6.1.2. For emergency responders

- Protective equipment : Ensure adequate ventilation. Concerning personal protective equipment to use, see section 8.
- Emergency procedures : Manipulations are to be done only by qualified and authorised persons.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. High efficiency particulate air filter (HEPA filter).

HT MOULDABLE 175

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

6.4. Reference to other sections

See Heading 7. See Heading 8. See Heading 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Obtain special instructions before use. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with skin and eyes. Avoid inhalation of vapours.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Product must only be kept in the original packaging. Keep container closed when not in use. Protect against frost.

Storage temperature : 10 - 25 °C

Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

aluminium oxide (1344-28-1)		
United Kingdom	Local name	Aluminium oxides
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ inhalable dust 4 mg/m ³ respirable dust
ethanediol, ethylene glycol (107-21-1)		
EU	Local name	Ethylene glycol
EU	IOELV TWA (mg/m ³)	52 mg/m ³
EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m ³)	104 mg/m ³
EU	IOELV STEL (ppm)	40 ppm
EU	Notes	Skin
United Kingdom	Local name	Ethane-1,2-diol
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ particulate 52 mg/m ³ vapour
United Kingdom	WEL TWA (ppm)	20 ppm vapour
United Kingdom	WEL STEL (mg/m ³)	104 mg/m ³ vapour
United Kingdom	WEL STEL (ppm)	40 ppm vapour
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Polycrystalline wools (PCW) (675106-31-7)		
United Kingdom	Remark (WEL)	TWA 8 hr 2 f/ml; 5 mg/m ³ (total dust); Machine-made mineral fibres: Work place Exposure Limit EH40

8.2. Exposure controls

Hand protection:

Chemical resistant PVC gloves (to European standard EN 374 or equivalent)

Eye protection:

Safety glasses with side shields

Skin and body protection:

Impervious clothing. Do not take working clothes home

Respiratory protection:

Liquid product : Inhalation unlikely. If dust are formed : Wear appropriate mask

Other information:

Do not eat, drink or smoke during use. Do not take working clothes home. Separate working clothes from town clothes. Launder separately.

HT MOULDABLE 175

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Paste.
Colour	: brown.
Odour	: odourless.
Odour threshold	: No data available
pH	: 9 - 10
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Slightly soluble
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Reacts violently with strong acids. zinc. Aluminium.

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

Acids. Aluminium. zinc.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

ATE CLP (oral)	7800
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Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 9 - 10
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Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 9 - 10
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Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
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Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
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Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
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HT MOULDABLE 175

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Other information	: Chronic effects: Lifetime rat inhalation studies of polycrystalline fiber show that at the maximum dose level tested, there was no evidence of lung cancer, lung fibrosis or any other significant adverse effect. Intraperitoneal, intratracheal and intrapleural studies in rats, together with two in vitro tests, have all shown negative results. Despite some study limitations, it is important to note the consistent lack of carcinogenic response in animal studies.

In 1988, the International Agency for Research on Cancer (IARC) considered the carcinogenicity of several groups of fibers. One grouping they considered was a poorly defined collection of disparate fiber types [polycrystalline fiber, refractory ceramic fiber (referred to as RCF) and single crystal whiskers] into a broad, single category they termed "ceramic fibers". The IARC monograph clearly indicated that test data specific to polycrystalline fibers were negative, but according to the IARC classification principles, positive results with other fiber types led to the conclusion that all fibers in the group should be considered as possible human carcinogens (IARC Category 2B). In a subsequent monograph on MMVF (2002), IARC did not specifically re-evaluate polycrystalline fiber. The Annual Report on Carcinogens prepared by the National Toxicology Program (NTP), (latest edition) classified "ceramic fibers (respirable size)" as reasonably anticipated to be carcinogens.

As produced most polycrystalline fibers, including Saffil, have fiber diameters too large to be respirable. Numerous scientific studies suggest that the potential toxicity of a respirable fiber is directly related to bio-persistence (the length of time it takes for the fiber to clear the lung). Based on limited in-vitro laboratory analysis, which measure the dissolution rate of fibers in simulated lung fluid, polycrystalline fibers are known to be relatively durable.

Data from respiratory surveillance studies are not available for PCW workers. In a small cohort of workers exposed to PCW with historical co-exposures to RCF and other fibers, there was no evidence of interstitial lung disease on chest x-rays nor an accelerated rate of loss of lung function on pulmonary function testing. Symptom responses could not be attributed to or excluded from exposure to PCW as a consequence of the prior fiber exposures. Irritant Properties

When tested using approved methods (Directive 67/548/EC, Annex V, Method B4), fibres contained in this material give negative results. Man made mineral fibres, can produce a mild irritation resulting in itching or rarely, in some sensitive individuals, in slight reddening. Unlike other irritant reactions this is not the result of allergy or chemical skin damage but is caused by a temporary mechanical effect.

Other Animal Studies

These materials have been designed to allow rapid clearance from lung tissue. And this low biopersistence has been confirmed in many studies on AES using EU protocol ECB/TM/27(rev 7).

When inhaled, even at very high doses, they do not accumulate to any level capable of producing a serious adverse biological effect. In lifetime chronic studies there was no exposure-related effect more than would be seen with any "inert" dust.

Subchronic studies at the highest doses achievable produced, at worst, a transient mild inflammatory response. Fibres with the same ability to persist in tissue do not produce tumours when injected into the peritoneal cavity of rats.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Polycrystalline wools (PCW) (675106-31-7)

Log Kow	Not applicable
Bioaccumulative potential	Bioaccumulation unlikely.

12.4. Mobility in soil

ethanediol, ethylene glycol (107-21-1)

Log Koc	0
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HT MOULDABLE 175

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

12.5. Results of PBT and vPvB assessment

HT MOULDABLE 175	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
Component	
ethanediol, ethylene glycol (107-21-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Polycrystalline wools (PCW) (675106-31-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
European List of Waste (LoW) code : 17 06 04 - insulation materials other than those mentioned in 17 06 01 and 17 06 03

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 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

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

HT MOULDABLE 175

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS	Chemical Abstract Service
ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai

Data sources : ECHA (European Chemicals Agency).

Other information : Occupational Hygiene: dawn.webster@unifrax.com.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed
H373	May cause damage to organs through prolonged or repeated exposure
EUH208	Contains . May produce an allergic reaction
EUH210	Safety data sheet available on request

SDS EU Unifrax

The information presented herein is presented in good faith and believed to be accurate as of the effective date of this Safety Data Sheet. Employers may use this SDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product. This summary of the relevant data reflects professional judgment; employers should note that information perceived to be less relevant has not been included in this SDS. Therefore, given the summary nature of this document, Unifrax I LLC does not extend any warranty (expressed or implied), assume any responsibility, or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.