Insulfrax 1300 HT

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 08/11/2022 Revision date: 08/11/2022 Version: 1.00

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

1.1. Product identifier

Product form	:	Substance
Trade name	:	Insulfrax 1300 HT
Chemical name	:	AES wool (synthetic fibres, alkaline earth silicate)
EC Index-No.	:	650-016-00-2
CAS-No.	:	436083-99-7
REACH registration No	:	01-2119457644-32-0002

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
Alkegen (formerly Unifrax)
Mill Lane, Rainford
UK– WA11 8LP St Helens, Merseyside
United Kingdom
T + 44 (0) 1744 88 7600 - F + 44 (0) 1744 88 9916

Email competent person
reachsds@alkegen.com

Distributor
Alkegen (formerly Unifrax)
Kleinreinsdorf 62
DE– 07989 Teichwolframsdorf
Germany
T + 49 (0) 366 24 40020 - F + 49 (0) 366 24 40099

Distributor
Alkegen (formerly Unifrax)
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42420 Lorette
France
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Distributor
Alkegen (formerly Unifrax)
Shaftsbury Street
DE23 8XA Derby
United Kingdom
T +44 (0) 1332 331808

Distributor
Alkegen (formerly Unifrax)
Ruská 311, Pozorka
CZ– 417 03 Dubí 3
Czech Republic
T + 42 (0) 417 800 356 - F + 42 (0) 417 539 838

Distributor
Alkegen (formerly Unifrax)
Via Volonterio 19
21047 Saronno (VA)
Italy
T +39 02 967 01 808 - F +39 02 962 5721

Distributor
Alkegen (formerly Unifrax)
Cristobal Bordiu 20
ES– 28003 Madrid
Spain
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@alkegen.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]

Listed on CLP Annex VI : EC Index-No.: 650-016-00-2

2.3. Other hazards

Other hazards which do not result in classification : May cause mechanical irritation to the skin, eyes and respiratory system.

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

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
AES wool (synthetic fibres, alkaline earth silicate) (Note A)(Note Q)(Note R)	CAS-No.: 436083-99-7 EC Index-No.: 650-016-00-2 REACH-no: 01-2119457644-32-0002	-	Not classified

Note A : Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4.
Note Q : The classification as a carcinogen need not apply if it can be shown that the substance fulfils one of the following conditions: — a short term biopersistence test by inhalation has shown that the fibres longer than 20 µm have a weighted half-life less than 10 days; or — a short term biopersistence test by intratracheal instillation has shown that the fibres longer than 20 µm have a weighted half-life less than 40 days; or — an appropriate intra-peritoneal test has shown no evidence of excess carcinogenicity; or — absence of relevant pathogenicity or neoplastic changes in a suitable long term inhalation test.
Note R : The classification as a carcinogen need not apply to fibres with a length weighted geometric mean diameter less two standard geometric errors greater than 6 µm.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : When in doubt or if symptoms are observed, get medical advice.
First-aid measures after inhalation : Move to fresh air.
First-aid measures after skin contact : Gently wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting.

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

Symptoms/effects after inhalation : Irritating to the respiratory system and mucous membranes. mechanical irritation.
Symptoms/effects after skin contact : May cause slight temporary irritation. mechanical irritation.
Symptoms/effects after eye contact : May cause slight temporary irritation to ocular mucous membranes. mechanical irritation.

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 non-combustible. Use extinguishing media appropriate for surrounding fire. Water spray. Foam. Dry powder. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Non flammable.

Explosion hazard : Product is not explosive.

Hazardous decomposition products in case of fire : None.

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

General measures : Avoid dust formation. Do not breathe dust. Avoid contact with skin and eyes.

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. Avoid sub-soil penetration.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Minimise generation of dust. Dust can be vacuumed with a vacuum cleaner containing a HEPA (High Efficiency Particulate Air) filter.

Other information : Disposal must be done according to official regulations.

6.4. Reference to other sections

See section 7. See Section 8. See Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Extraction to remove dust at its source.

Precautions for safe handling : Obtain special instructions before use. Ensure good ventilation of the work station. Use personal protective equipment as required. Do not breathe dust. Avoid contact with skin and eyes. Clean contaminated areas thoroughly.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Product must only be kept in the original packaging. Store tightly closed in a dry and cool place.

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

7.3. Specific end use(s)

For professional users only. See Section 8.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

AES wool (synthetic fibres, alkaline earth silicate) (436083-99-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Man made vitreous fibers (MMVF)
Remark	The NOEL of 30 x 10^6 WHO-f/m3 or 10 x 10^6 f with l > 20 µm is used as the starting point to derive an OEL. Taking into account this well defined NOEL, a LOEL at fivefold higher concentrations, and the absence of a carcinogenic potential in long term inhalation studies allows to apply the small uncertainty factor of 3 resulting in the OEL of 10 f/ml (10x10^6 fibres /m3 or 1 mg/m3). (Year of adoption 2002)
Regulatory reference	SCOEL Recommendations
United Kingdom - Occupational Exposure Limits	
Local name	MMMF (Machine-made mineral fibre)
WEL TWA (OEL TWA) [1]	5 mg/m^3 (except for refractory ceramic fibres and special purpose fibres)
WEL TWA (OEL TWA) [2]	2 fibers/ml (except for refractory ceramic fibres and special purpose fibres)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses with side shields. EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Leather protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:
Dust formation: dust mask. (FFP2)

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

Other information:
Do not eat, drink or smoke when using this product. Do not take working clothes home. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	white.
Appearance	:	Fibres.
Odour	:	odourless.
Odour threshold	:	Not available
Melting point	:	1350 °C
Freezing point	:	Not applicable
Boiling point	:	Not applicable
Flammability	:	Not applicable
Explosive properties	:	Product is not explosive.
Oxidising properties	:	Non oxidizing.
Explosive limits	:	Not applicable
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not self-igniting
Decomposition temperature	:	Not available
pH	:	Not applicable
pH solution	:	Not available
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	Not applicable
Solubility	:	Water: < 1 mg/l
Partition coefficient n-octanol/water (Log Kow)	:	Not applicable
Vapour pressure	:	Not applicable
Vapour pressure at 50°C	:	Not available
Density	:	2.6 g/cm³
Relative density	:	2.6
Relative vapour density at 20°C	:	Not applicable
Particle size	:	Not available
Particle size distribution	:	Not available
Particle shape	:	Not available
Particle aspect ratio	:	Not available
Particle aggregation state	:	Not available
Particle agglomeration state	:	Not available
Particle specific surface area	:	Not available
Particle dustiness	:	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	:	Not applicable
Relative evaporation rate (ether=1)	:	Not applicable
Other properties	:	Length weighted geometric mean diameter of fibres contained in the product: 1.9 - 6 µm

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

No dangerous reactions known.

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

None.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	:	Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	:	Not classified (Based on available data, the classification criteria are not met) pH: Not applicable
Additional information	:	(OECD 404 method)
Serious eye damage/irritation	:	Not classified (Based on available data, the classification criteria are not met) pH: Not applicable
Additional information	:	(OECD 492 method)
Respiratory or skin sensitisation	:	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Additional information	:	(OECD 471 method) (OECD 476 method)
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)
Additional information	:	(OECD 451 method)
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Additional information	:	(OECD 421 method)
STOT-single exposure	:	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	:	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	:	Not classified (Not relevant)

AES wool (synthetic fibres, alkaline earth silicate) (436083-99-7)	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Other information : 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.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

12.2. Persistence and degradability

AES wool (synthetic fibres, alkaline earth silicate) (436083-99-7)	
Persistence and degradability	Not applicable.

12.3. Bioaccumulative potential

AES wool (synthetic fibres, alkaline earth silicate) (436083-99-7)	
Partition coefficient n-octanol/water (Log Kow)	Not applicable
Bioaccumulative potential	Not applicable.

12.4. Mobility in soil

AES wool (synthetic fibres, alkaline earth silicate) (436083-99-7)	
Ecology - soil	Not applicable.

12.5. Results of PBT and vPvB assessment

AES wool (synthetic fibres, alkaline earth silicate) (436083-99-7)
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. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.

Product/Packaging disposal recommendations : Recycle or dispose of in compliance with current legislation.

European List of Waste (LoW) code : 10 11 03 - waste glass-based fibrous materials

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID 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
14.3. Transport hazard class(es)				
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				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : Not applicable

Transport by sea

Transport regulations (IMDG) : Not applicable

Air transport

Transport regulations (IATA) : Not applicable

Inland waterway transport

Transport regulations (ADN) : Not applicable

Rail transport

Transport regulations (RID) : Not applicable

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

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:	
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)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
CAS-No.	Chemical Abstract Service number

Data sources : Information provided by the manufacturer. European Chemicals Agency, http://echa.europa.eu/.

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

. CARE PROGRAMME
ECFIA, representing the high temperature insulation wool (HTIW) industry, has undertaken an extensive industrial hygiene programme to provide assistance to the users of all products containing HTIW.
The objectives are twofold:
• to monitor workplace dust concentrations at both manufacturers' and customers' premises.
• to document manufacturing and use of HTIW products from an industrial hygiene perspective in order to establish appropriate recommendations to reduce exposures.

. PRECAUTIONARY MEASURES TO BE TAKEN AFTER SERVICE UPON REMOVAL

In almost all applications high temperature insulating wools products (HTIW) are used as an insulating material helping to maintain temperature at 900°C or more in a closed space. As produced, HTIW are vitreous (glassy) materials which, upon continued exposure to elevated temperatures (above 900 °C) might de-vitrify. The occurrence and extent of crystalline phase formation is dependent on the duration and temperature of exposure, fibre chemistry and/or the presence of fluxing agents. As only a thin layer of the insulation hot face side is exposed to high temperature, respirable dust generated during removal operations does not typically contain detectable levels of crystalline silica (CS).
In applications where the material is heat soaked, duration of heat exposure is normally short and a significant de-vitrification allowing CS to build up does not occur. This is the case for waste mould casting for instance.

Toxicological evaluation of the effect of the presence of CS in artificially heated HTIW material has not shown any increased toxicity in vitro and in vivo. The results from different combinations of factors like increased brittleness of fibres, or microcrystals embedded in the glass structure of the fibre and therefore not biologically available may explain the lack of toxicological effects.

IARC evaluation as provided in Monograph 68 is not relevant as CS is not biologically available in after service HTIW and respirable dust generated during removals operations generally do not contain detectable levels of crystalline silica..

High concentrations of fibres and other dusts may be generated when after-service products are mechanically disturbed during operations such as wrecking. Therefore ECFIA recommends:
• control measures are taken to reduce dust emissions; and
• all personnel directly involved wear an appropriate respirator to minimise exposure and comply with local regulatory limits.

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