

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 1 of 10

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

1.1. Product identifier

GEIST Crosslinker

UFI: 355P-7KWD-GFA2-W278

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

Use of the substance/mixture

Hardener

1.3. Details of the supplier of the safety data sheet

Company name: Westhill Trading Limited
Street: Unit 8, Enterprise House, 44-46 Terrace Road
Place: GB-KT12 2SD Walton on Thames, Surrey, UK
Telephone: +44 7739 579 694
e-mail: info@leathercare.com
Internet: www.leathercare.com

1.4. Emergency telephone number:

+44 7739 579 694

Further Information

As from 24 August 2023 adequate training is required before industrial or professional use. Restricted to professional users.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Acute Tox. 4; H332
Skin Sens. 1; H317
STOT SE 3; H335
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

Contains isocyanates. May produce an allergic reaction.

2.2. Label elements

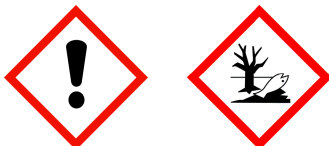
GB CLP Regulation

Hazard components for labelling

HDI oligomers, isocyanurate
hexamethylene-di-isocyanate

Signal word: Warning

Pictograms:



Hazard statements

H332 Harmful if inhaled.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 2 of 10

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

Special labelling of certain mixtures

EUH204	Contains isocyanates. May produce an allergic reaction. As from 24 August 2023 adequate training is required before industrial or professional use.
--------	--

Labelling of packages where the contents do not exceed 125 ml

Signal word: Warning

Pictograms:



Hazard statements

H317

Precautionary statements

P261-P280-P302+P352-P333+P313-P362+P364-P501

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	Classification (GB CLP Regulation)	
28182-81-2	HDI oligomers, isocyanurate	60 - < 65 %
	931-274-8	01-2119485796-17
	Acute Tox. 4, Skin Sens. 1, STOT SE 3; H332 H317 H335	
822-06-0	hexamethylene-di-isocyanate	< 1 %
	212-485-8	615-011-00-1
	Acute Tox. 3, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3; H331 H315 H319 H334 H317 H335	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
28182-81-2	931-274-8	HDI oligomers, isocyanurate	60 - < 65 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = >2000 mg/kg; oral: LD50 = >2500 mg/kg		
822-06-0	212-485-8	hexamethylene-di-isocyanate	< 1 %
	inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists) Resp. Sens. 1; H334: >= 0,5 - 100 Skin Sens. 1; H317: >= 0,5 - 100		

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 3 of 10

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink 1 glass of water.

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

No 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

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 4 of 10

7.1. Precautions for safe handling**Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

Hints on joint storage

No special measures are necessary.

7.3. Specific end use(s)

Gleitmittel / Lubricant / Lubrykant

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL/DMEL values**

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
28182-81-2	HDI oligomers, isocyanurate		
Worker DNEL, acute	inhalation	local	1 mg/m ³
Worker DNEL, long-term	inhalation	systemic	0,5 mg/m ³

PNEC values

CAS No	Substance	
Environmental compartment	Value	
28182-81-2	HDI oligomers, isocyanurate	
Freshwater	0,127 mg/l	
Marine water	0,0127 mg/l	
Freshwater sediment	266700 mg/kg	
Marine sediment	26670 mg/kg	
Micro-organisms in sewage treatment plants (STP)	38,3 mg/l	
Soil	53182 mg/kg	

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 5 of 10

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	(
Colour:	white	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		175 °C
Flammability		
Solid/liquid:		not applicable
Gas:		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		65 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value (at 20 °C):		7,2
Water solubility:		easily soluble
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		not determined
Vapour pressure:		not determined
Density (at 20 °C):		1,11 g/cm ³
Relative vapour density:		not determined

9.2. Other information**Information with regard to physical hazard classes****Explosive properties**

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Evaporation rate:	not determined
Solid content:	not determined
Viscosity / dynamic: (at 20 °C)	11000-14000 mPa·s

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 6 of 10

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

Unstabilized product can polymerize spontaneously.

10.3. Possibility of hazardous reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

Keep away from: Radical former, Peroxides, Reducing agent

10.6. Hazardous decomposition products

Hydrogen cyanide (hydrocyanic acid).

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****ATEmix calculated**

ATE (inhalation vapour) 18,17 mg/l; ATE (inhalation dust/mist) 2,481 mg/l

Acute toxicity

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
28182-81-2	HDI oligomers, isocyanurate					
	oral	LD50 >2500 mg/kg	Rat		423 Acute Oral toxicity - Acute Toxic Cl	
	dermal	LD50 >2000 mg/kg	Rat		402 Acute Dermal Toxicity	
	inhalation vapour	ATE 11 mg/l				
	inhalation (1 h) dust/mist	ATE 1,5 mg/l				
822-06-0	hexamethylene-di-isocyanate					
	inhalation vapour	ATE 3 mg/l				
	inhalation dust/mist	ATE 0,5 mg/l				

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information**12.1. Toxicity**

Very toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
28182-81-2	HDI oligomers, isocyanurate					
	Acute crustacea toxicity	EC50 125 mg/l	48 h	Daphnia		

12.2. Persistence and degradability

The product has not been tested.

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 7 of 10

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
28182-81-2	HDI oligomers, isocyanurate			
	301D Ready Biodegradability - Closed Bottle Test	1%	28	Activated sludge

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
28182-81-2	HDI oligomers, isocyanurate	5,54

BCF

CAS No	Chemical name	BCF	Species	Source
28182-81-2	HDI oligomers, isocyanurate	367,70		

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number or ID number:**

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HDI oligomers, isocyanurate)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 8 of 10

Special Provisions: 274 335 375 601
 Limited quantity: 5 L
 Excepted quantity: E1
 Transport category: 3
 Hazard No: 90
 Tunnel restriction code: -

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HDI oligomers, isocyanurate)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Classification code: M6
 Special Provisions: 274 335 375 601
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

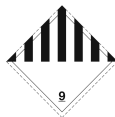
14.1. UN number or ID number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HDI oligomers, isocyanurate)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Special Provisions: 274, 335, 969
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HDI oligomers, isocyanurate)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Special Provisions: A97 A158 A197 A215
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y964
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 964
 IATA-max. quantity - Passenger: 450 L
 IATA-packing instructions - Cargo: 964
 IATA-max. quantity - Cargo: 450 L

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 9 of 10

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

**14.6. Special precautions for user**

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 74, Entry 75

Information according to 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Abbreviations and acronyms**

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

Safety Data Sheet

according to UK REACH Regulation

GEIST Crosslinker

Revision date: 07.09.2022

Product code: KK102

Page 10 of 10

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Acute Tox. 4; H332	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method
Aquatic Acute 1; H400	
Aquatic Chronic 1; H410	

Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH204	Contains isocyanates. May produce an allergic reaction.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)