



Safety Data Sheet

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

THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

Date of compilation: 2015-12-14

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

1.1 Product identifier

Trade name

THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Registration number (REACH)

not relevant (mixture)

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

Relevant identified uses

For use in heat tracing and various other applications to aid in the transfer of heat.

1.3 Details of the supplier of the safety data sheet

Thermon Europe B.V.
Boezemweg 25
2641 KG Pijnacker
PO Box: 205
2640 AE
Netherlands

Telephone: +31 15 3615 316
Telefax: e-mail: info@thermon.com
Website: www.thermon.com
e-mail (competent person)

SDS@thermon.com

1.4 Emergency telephone number

Poison centre		
Country	Name	Telephone
United Kingdom	National Poisons Information Service (NPIS). For medical professionals only.	0844-8920111 (UK only)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Section	Hazard class	Category	Hazard class and category	Hazard statement
3.2	skin corrosion/irritation	Cat. 2	(Skin Irrit. 2)	H315
3.3	serious eye damage/eye irritation	Cat. 2	(Eye Irrit. 2)	H319

Remarks

For full text of H-phrases: see SECTION 16.

Supplemental hazard information

Hazards arising from this product are primarily present when product is in the uncured state. Once hardened, the compound is non-hazardous; however dust that may result from mechanical disturbance can be hazardous.



Safety Data Sheet

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

THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

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2.2 Label elements

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

Signal word

Warning

Pictograms

GHS07



Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements

Precautionary statements - prevention

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	wt%	Classification acc. to 1272/2008/EC	Pictograms
Silicic acid, sodium salt (MR >2,6 <3,2)	CAS No 1344-09-8 EC No 215-687-4	10 - < 25	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335	

For full text of abbreviations: see SECTION 16.



Safety Data Sheet

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

THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

Date of compilation: 2015-12-14

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Brush off loose particles from skin. - Rinse skin with water/shower.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

The product is not combustible, co-ordinate firefighting measures to the fire surroundings

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

carbon monoxide (CO), carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it.



Safety Data Sheet

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

THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

Date of compilation: 2015-12-14

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains.

Advices on how to clean up a spill

Take up mechanically. Wipe up with absorbent material (e.g. cloth, fleece).

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

• Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

Incompatible substances or mixtures

Keep in a cool, well-ventilated place away from acids, alkalis, heavy metal salts and reducing substances. Ammonium compounds.

Consideration of other advice

• Ventilation requirements

Use local and general ventilation.

7.3 Specific end use(s)

Not relevant.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
GB	aluminium oxides	1344-28-1	WEL		10			EH40/2005
GB	aluminium oxides	1344-28-1	WEL		4			EH40/2005
GB	dust		WEL		10			EH40/2005
GB	dust		WEL		4			EH40/2005
GB	kaolin	1332-58-7	WEL		2			EH40/2005

Notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified
TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average



Safety Data Sheet

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

THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

Date of compilation: 2015-12-14

Relevant DNELs/DMELs/PNECs and other threshold levels

• relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	DNEL	1.59 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	DNEL	5.61 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects

• relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	PNEC	7.5 mg/l	aquatic organisms	freshwater	short-term (single instance)
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	PNEC	348 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	PNEC	7.5 mg/l	aquatic organisms	water	continuous

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection. (EN 166).

Skin protection

• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

• type of material

NR: natural rubber, latex

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.



Safety Data Sheet

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

THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

Date of compilation: 2015-12-14

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Particulate filter device (EN 143). P3 (filters at least 99,95 % of airborne particles, colour code: White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid (paste)
Colour	grey
Odour	characteristic

Other physical and chemical parameters

pH (value)	11
Melting point/freezing point	not determined
Initial boiling point and boiling range	101 - 102 °C
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not relevant (fluid)
Explosive limits	not determined
Vapour pressure	156 mmHg at 61.5 °C
Density	not determined
Relative density	Information on this property is not available.
Solubility(ies)	not determined
Partition coefficient	
n-octanol/water (log KOW)	This information is not available.
Auto-ignition temperature	not determined
Viscosity	not determined
Explosive properties	none
Oxidising properties	none

9.2 Other information

Of no significance.

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.



Safety Data Sheet

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

THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

Date of compilation: 2015-12-14

10.4 Conditions to avoid

High temperature will cause a hardening effect that is intended per the use of product. .

Physical stresses which might result in a hazardous situation and have to be avoided

strong shocks

10.5 Incompatible materials

The uncured compound turns to a gel and generates heat when mixed with acid. The compound may react with ammonium salts resulting in evolution of ammonia gas. The compound can react with sugar residues to form carbon monoxide.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Compound may decompose when mixed with acids releasing silicic acid.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

• Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	oral	LD50	3,400 mg/kg	rat

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

Specific target organ toxicity (STOT)

Shall not be classified as a specific target organ toxicant.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Other information

Hazards arising from this product are primarily present when product is in the uncured state. Once hardened, the compound is non-hazardous; however dust that may result from mechanical disturbance can be hazardous. Once hardened, the compound is non hazardous. Cutting, grinding, crushing, or drilling hardened compound may generate dust containing silica, graphite, and/or inorganic colorant. The dust may irritate the nose, throat, and respiratory tract. Coughing, sneezing, chest pain, shortness of breath, inflammation of mucous membrane, and flu-like fever may occur following exposures in excess of appropriate exposure limits. Pre-existing respiratory conditions may be aggravated when in the presence of dust.



Safety Data Sheet

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THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

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SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	LC50	1,108 mg/l	fish	96 hours
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	EC50	1,700 mg/l	aquatic invertebrates	48 hours
Silicic acid, sodium salt (MR >2,6 <3,2)	1344-09-8	ErC50	>345.4 mg/l	algae	72 hours

Biodegradation

The relevant substances of the mixture are readily biodegradable.

12.2 Persistence and degradability

This material is not persistent in aquatic systems. It is high in pH, (when undiluted and/or not neutralized) which is acutely harmful to aquatic life. Diluted material rapidly de-polymerizes to yield dissolved silica (not distinguishable from natural dissolved silica). It does not contribute to BOD. This material does not bio-accumulate except in species that use silica as a structural material such as siliceous sponges and diatoms. The addition of excess dissolved silica over the limiting concentrations will not stimulate the growth of diatom populations. Neither silica nor sodium will appreciably bio-concentrate up the food chain.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

Endocrine disrupting potential

None of the ingredients are listed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.



Safety Data Sheet

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THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

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SECTION 14: Transport information

- 14.1 UN number (not subject to transport regulations)
- 14.2 UN proper shipping name not relevant
- 14.3 Transport hazard class(es)
Class -
- 14.4 Packing group not relevant
- 14.5 Environmental hazards none (non-environmentally hazardous acc. to the dangerous goods regulations)
- 14.6 Special precautions for user
There is no additional information.
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

SECTION 15: Regulatory information

- 15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
Relevant provisions of the European Union (EU)
- **Restrictions according to REACH, Annex XVII**
None of the ingredients are listed.
 - **List of substances subject to authorisation (REACH, Annex XIV)**
None of the ingredients are listed.
 - **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II**
None of the ingredients are listed.
 - **Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**
None of the ingredients are listed.
 - **Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)**
None of the ingredients are listed.
 - **Explosives precursors which are subject to restrictions**
None of the ingredients are listed.
- 15.2 **Chemical Safety Assessment**
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)



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THERMON Ultra High Temperature Heat Transfer Compound Grade T-99

Version number: GHS 1.0

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Abbr.	Descriptions of used abbreviations
EH40/2005	EH40/2005 Workplace exposure limits, Table 1: List of approved workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
Eye Dam.	seriously damaging to the eye
Eye Irrit.	irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Skin Corr.	corrosive to skin
Skin Irrit.	irritant to skin
STEL	short-term exposure limit
STOT SE	specific target organ toxicity - single exposure
TWA	time-weighted average
vPvB	very Persistent and very Bioaccumulative
WEL	workplace exposure limit

Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards/environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H315	causes skin irritation
H319	causes serious eye irritation
H335	may cause respiratory irritation

Disclaimer

Data is presented in good faith and is based on the present state of our knowledge. It is intended to describe the compound with regard to the appropriate safety precautions. This information is not intended to be a product specification. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable.

However, users should review these recommendations in the specific context of the intended use and determine whether they are appropriate.