

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

---

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

#### 1.1 Product identifier

Trade name : Heat-Flex® Alutherm  
Product code : 000000000000124697

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

Use of the Sub-stance/Mixture : Coatings and paints, thinners, paint removers  
Recommended restrictions on use : Reserved for industrial and professional use.

#### 1.3 Details of the supplier of the safety data sheet

Company : Sherwin-Williams Coatings  
Deutschland GmbH  
Rieter Tal 1  
71665 Vaihingen / Enz  
Telephone : +4970421090  
E-mail address of person responsible for the SDS : SDS-DE@sherwin.com

#### 1.4 Emergency telephone number

##### National advisory body/Poison Center

Telephone number: Not available

##### Supplier

Telephone number: +49 (0) 7042 109-0  
Hours of operation: Emergency contact available 24 hours a day

---

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

Specific target organ toxicity - repeated exposure, Category 2

H373: May cause damage to organs through prolonged or repeated exposure.

Long-term (chronic) aquatic hazard, Category 2

H411: Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements :  
H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260 Do not breathe mist or vapours.  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
**Response:**  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391 Collect spillage.

#### Hazardous components which must be listed on the label:

xylene  
butan-1-ol

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
xylene	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32-XXXX	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 30 - < 50
ethylbenzene	100-41-4 202-849-4 601-023-00-4 01-2119489370-35-XXXX	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT RE 2; H373 (hearing organs) Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 2,5 - < 10
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha	64742-48-9 265-150-3 649-327-00-6 01-2119457273-39-XXXX	Asp. Tox. 1; H304 EUH066	>= 1 - < 10
trizinc bis(orthophosphate)	7779-90-0 231-944-3 030-011-00-6 01-2119485044-40-XXXX	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 2,5 - < 10
butan-1-ol	71-36-3 200-751-6 603-004-00-6 01-2119484630-38-XXXX	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system)	>= 1 - < 3
zinc oxide	1314-13-2 215-222-5 030-013-00-7 01-2119463881-32-XXXX	Aquatic Acute 1; H400 Aquatic Chronic 1; H410  M-Factor (Acute	>= 0,25 - < 1

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

		aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	
--	--	---	--

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.  
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Continue rinsing eyes during transport to hospital.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do NOT induce vomiting.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.

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

- Symptoms : There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] See Sections 2 and 3 for details.  
Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Risks : Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause damage to organs through prolonged or repeated exposure.

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

Treatment : Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

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

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
For safety reasons in case of fire, cans should be stored separately in closed containments.  
Use a water spray to cool fully closed containers.

## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.  
Avoid formation of aerosol.  
Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Take precautionary measures against static discharges.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Open drum carefully as content may be under pressure.  
To avoid spills during handling keep bottle on a metal tray.  
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.  
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke.  
Wash hands before breaks and at the end of workday.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Storage class (TRGS 510) : 3

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
xylene	1330-20-7	TWA	50 ppm 221 mg/m <sup>3</sup>	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 442 mg/m <sup>3</sup>	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		AGW	50 ppm 220 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: Skin absorption			
aluminium powder (stabilised)	7429-90-5	AGW (Inhalable fraction)	10 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Alveolate fraction)	1,25 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW (Alveolate fraction)	125 mg/m <sup>3</sup>	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
ethylbenzene	100-41-4	TWA	100 ppm	2000/39/EC

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

			442 mg/m3	
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	200 ppm 884 mg/m3	2000/39/EC
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		AGW	20 ppm 88 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha	64742-48-9	AGW	300 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 2;(II)			
	Further information: Group exposure limit for hydrocarbon solvent mixtures			
butan-1-ol	71-36-3	AGW	100 ppm 310 mg/m3	DE TRGS 900
	Peak-limit: excursion factor (category): 1;(I)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

### Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
xylene	1330-20-7	methylhippuric acid (all isomers): 2.000 mg/l (Urine)	Immediately after exposure or after working hours	TRGS 903
aluminium powder (stabilised)	7429-90-5	Aluminium: 50 µg/g creatinine (Urine)	In case of long-term exposure: after more than one shift	TRGS 903
ethylbenzene	100-41-4	mandelic acid + phenylglyoxylic acid: 250 mg/g Creatinine (Urine)	Immediately after exposure or after working hours	TRGS 903
butan-1-ol	71-36-3	1-butanol: 2 mg/g Creatinine (Urine)	Before next shift	TRGS 903
		1-butanol: 10 mg/g Creatinine (Urine)	Immediately after exposure or after working hours	TRGS 903

## 8.2 Exposure controls

### Personal protective equipment

Eye protection : Equipment should conform to EN 166  
Eye wash bottle with pure water  
Tightly fitting safety goggles



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

Wear face-shield and protective suit for abnormal processing problems.

### Hand protection

- Glove length : Standard glove type.
- Directive : Equipment should conform to EN 374
- Material : Protective equipment only chosen according to specific regulatory requirements after a risk assessment.
- Material : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.
- Remarks : Follow the instructions for use issued by the producer.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

- Skin and body protection : Flame retardant antistatic protective clothing.  
Rubber apron  
Boots  
Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

- Respiratory protection : No personal respiratory protective equipment normally required.

- Protective measures : In case of insufficient ventilation, wear suitable respiratory equipment.

### Environmental exposure controls

- Water : The product should not be allowed to enter drains, water courses or the soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Physical state : liquid

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

---

Colour	:	grey
Odour	:	slight
Odour Threshold	:	No data available
Upper explosion limit / Upper flammability limit	:	7 %(V)
Lower explosion limit / Lower flammability limit	:	1 %(V)
Flash point	:	26 °C Method: closed cup
Auto-ignition temperature	:	Not relevant/applicable due to the nature of the product.
Decomposition temperature	:	Not relevant/applicable due to the nature of the product.
pH	:	Not relevant/applicable due to the nature of the product.
Viscosity		
Viscosity, dynamic	:	200 mPa.s (20 °C)
Viscosity, kinematic	:	> 20,5 mm <sup>2</sup> /s (40 °C)
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	Not relevant/applicable due to the nature of the product.
Vapour pressure	:	7,9993 hPa
Density	:	1,2 g/cm <sup>3</sup> (20 °C)
Relative vapour density	:	Not relevant/applicable due to the nature of the product.

### 9.2 Other information

Explosives	:	No dangerous reaction known under conditions of normal use.
Oxidizing properties	:	No dangerous reaction known under conditions of normal use.

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No hazards to be specially mentioned.  
No decomposition if stored and applied as directed.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

---

### 10.2 Chemical stability

Stable under normal conditions.  
No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.  
  
Vapours may form explosive mixture with air.

### 10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.  
  
Temperatures greater than recommended storage temperature.

### 10.5 Incompatible materials

Materials to avoid : Strong acids and strong bases

### 10.6 Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

---

## SECTION 11: Toxicological information

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

Information on likely routes of exposure :

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] See Sections 2 and 3 for details. Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

#### Acute toxicity

Not classified based on available information.

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

### **Components:**

#### **xylene:**

Acute oral toxicity : LD50 Oral (Rat): 3.523 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 1.700 mg/kg

#### **ethylbenzene:**

Acute oral toxicity : LD50 Oral (Rat): 3.500 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 5.510 mg/kg

#### **trizinc bis(orthophosphate):**

Acute oral toxicity : LD50 Oral (Rat): > 5.001 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5,7 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

#### **butan-1-ol:**

Acute oral toxicity : LD50 Oral (Rat): ca. 2.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 3.430 mg/kg

#### **zinc oxide:**

Acute oral toxicity : LD50 Oral (Rat): > 15.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5,7 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

### **Skin corrosion/irritation**

Causes skin irritation.

### **Product:**

Remarks : Extremely corrosive and destructive to tissue.

### **Serious eye damage/eye irritation**

Causes serious eye irritation.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

### Product:

Remarks : May cause irreversible eye damage.

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

#### **Germ cell mutagenicity**

Not classified based on available information.

#### **Carcinogenicity**

Not classified based on available information.

#### **Reproductive toxicity**

Not classified based on available information.

#### **STOT - single exposure**

May cause respiratory irritation.

#### **STOT - repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

#### **Aspiration toxicity**

Not classified based on available information.

## 11.2 Information on other hazards

### **Endocrine disrupting properties**

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **Further information**

#### Product:

Remarks : Solvents may degrease the skin.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### **xylene:**

Toxicity to algae/aquatic : EC50 (Pseudokirchneriella subcapitata (green algae)): 2,2

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version	Revision Date:	Date of last issue: -
1.0	14.12.2022	Date of first issue: 14.12.2022

plants mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC: > 1,3 mg/l  
Exposure time: 56 d  
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1,17 mg/l  
Exposure time: 7 d  
Species: Daphnia (water flea)

### ethylbenzene:

Toxicity to fish : LC50 (Fish): 1 mg/l  
Exposure time: 96 h

### zinc oxide:

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 0,17 mg/l  
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

## 12.2 Persistence and degradability

No data available

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Endocrine disrupting properties

### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

### 12.7 Other adverse effects

#### Product:

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.  
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR : UN 1263  
IMDG : UN 1263  
IATA : UN 1263

### 14.2 UN proper shipping name

ADR : PAINT  
IMDG : PAINT  
(xylene, trizinc bis(orthophosphate))  
IATA : Paint

### 14.3 Transport hazard class(es)

ADR : 3  
IMDG : 3  
IATA : 3

### 14.4 Packing group

ADR  
Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

Labels : 3  
Tunnel restriction code : (D/E)

### IMDG

Packing group : III  
Labels : 3  
EmS Code : F-E, S-E

### IATA (Cargo)

Packing instruction (cargo aircraft) : 366  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

### IATA (Passenger)

Packing instruction (passenger aircraft) : 355  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

## 14.5 Environmental hazards

### ADR

Environmentally hazardous : yes

### IMDG

Marine pollutant : yes

## 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 3

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version	Revision Date:	Date of last issue: -
1.0	14.12.2022	Date of first issue: 14.12.2022

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Please see [https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/crisis-and-terrorism/explosives/explosives-precursors/docs/list\\_of\\_competent\\_authorities\\_and\\_national\\_contact\\_points\\_en.pdf](https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/crisis-and-terrorism/explosives/explosives-precursors/docs/list_of_competent_authorities_and_national_contact_points_en.pdf) aluminium powder (stabilised) (ANNEX II)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. P5c FLAMMABLE LIQUIDS

E2 ENVIRONMENTAL HAZARDS

34 Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)

Water hazard class (Germany) : WGK 2 obviously hazardous to water  
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : Total dust:  
Not applicable  
Inorganic substances in powdered form:  
Not applicable  
Inorganic substances in vapour or gaseous form:  
Not applicable  
Organic Substances:  
portion Class 1: 0,05 %

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

Carcinogenic substances:  
portion Class 3: 5,15 %

Mutagenic:  
others: 5,15 %

Toxic to reproduction:  
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Volatile organic compounds (VOC) content: 51,76 %

### 15.2 Chemical safety assessment

This product is in full compliance according to REACH regulation 1907/2006/EC.  
No Chemical Safety Assessment has been carried out for this mixture.

## SECTION 16: Other information

### Full text of H-Statements

H225 : Highly flammable liquid and vapour.  
H226 : Flammable liquid and vapour.  
H302 : Harmful if swallowed.  
H304 : May be fatal if swallowed and enters airways.  
H312 : Harmful in contact with skin.  
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.  
H373 : May cause damage to organs through prolonged or repeated exposure.  
H373 : May cause damage to organs through prolonged or repeated exposure if inhaled.  
H400 : Very toxic to aquatic life.  
H410 : Very toxic to aquatic life with long lasting effects.  
H412 : Harmful to aquatic life with long lasting effects.  
EUH066 : Repeated exposure may cause skin dryness or cracking.

### Full text of other abbreviations

Acute Tox. : Acute toxicity  
Aquatic Acute : Short-term (acute) aquatic hazard  
Aquatic Chronic : Long-term (chronic) aquatic hazard  
Asp. Tox. : Aspiration hazard  
Eye Dam. : Serious eye damage  
Eye Irrit. : Eye irritation  
Flam. Liq. : Flammable liquids  
Skin Irrit. : Skin irritation  
STOT RE : Specific target organ toxicity - repeated exposure  
STOT SE : Specific target organ toxicity - single exposure  
2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version 1.0  
Revision Date: 14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

	list of indicative occupational exposure limit values
DE TRGS 900	: Germany. TRGS 900 - Occupational exposure limit values.
TRGS 903	: TRGS 903 - Biological limit values
2000/39/EC / TWA	: Limit Value - eight hours
2000/39/EC / STEL	: Short term exposure limit
DE TRGS 900 / AGW	: Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Flam. Liq. 3	H226
Skin Irrit. 2	H315
Eye Irrit. 2	H319
STOT SE 3	H335
STOT RE 2	H373
Aquatic Chronic 2	H411

#### Classification procedure:

Based on product data or assessment
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

## Heat-Flex® Alutherm

Version  
1.0

Revision Date:  
14.12.2022

Date of last issue: -  
Date of first issue: 14.12.2022

---

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.

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

DE / EN