

# SAFETY DATA SHEET

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

### 1.1 Product identifier

**Product name** : HEAT-FLEX® 3500 Thermal Insulative Coating - Slate Gray

**Product code** : B59A350

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

**Material uses** : Paint or paint related material.

: Industrial use only.

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

Sherwin-Williams UK Limited - Protective & Marine  
Coatings Division EMEA  
Tower Works  
Kestor Street  
Bolton  
BL2 2AL  
United Kingdom  
+44 (0) 1204 521771

The Sherwin-Williams Company  
Inver France SAS  
2 Rue Jean Revaus - BP 80088 - 79102  
Thouars CEDEX  
France

**e-mail address of person responsible for this SDS** : hse.pm.emea@sherwin.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Center

**Telephone number** : CAV Azienda Ospedaliera Papa Giovanni XXIII - Bergamo - Tel. 800.88.33.00  
CAV Azienda Ospedaliera "Careggi" U.O. Tossicologia Medica - Firenze - Tel. (+39) 055.794.7819  
CAV "Azienda Ospedaliera Università di Foggia" - Foggia - Tel. 800.183.459  
CAV Ospedale Niguarda - Milano - Tel. (+39) 02.66.1010.29  
CAV "Azienda Ospedaliera A. Cardarelli" - Napoli - Tel. (+39) 081.545.3333  
CAV Centro Nazionale di Informazione Tossicologica - Pavia - Tel. (+39) 0382.24.444  
CAV "Ospedale Pediatrico Bambino Gesù" - Roma - Tel. (+39) 06.6859.3726  
CAV Policlinico "Umberto I" - Roma - Tel. (+39) 06.4997.8000  
CAV Policlinico "A. Gemelli" - Roma - Tel. (+39) 06.305.4343  
CAV Centro antiveleni Veneto - Verona - Tel. 800.011.858

#### Supplier

**Telephone number** : +(44)-870-8200 418

**Hours of operation** : Emergency contact available 24 hours a day

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

Repr. 2, H361

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : Suspected of damaging fertility or the unborn child.  
Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Avoid release to the environment.

**Response** : IF exposed or concerned: Get medical advice or attention.

**Storage** : Not applicable.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** :

**Supplemental label elements** : Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction. Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. FOR INDUSTRIAL USE ONLY

**Special packaging requirements**

Not applicable.

### 2.3 Other hazards

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


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.

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

**3.2 Mixture** :

### SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Orthoboric Acid, Zinc Salt	EC: 235-804-2 CAS: 12767-90-7	≥10 - ≤20	Repr. 2, H361 (inhalation) Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1] 
2-Butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	<1	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319	ATE [Oral] = 1200 mg/kg ATE [Inhalation (vapours)] = 3 mg/l	[1] [2]
3-Iodo-2-propynyl Butyl Carbamate	EC: 259-627-5 CAS: 55406-53-6 Index: 616-212-00-7	≤0.3	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (larynx) Aquatic Acute 1, H400 Aquatic Chronic 1, H410 <b>See Section 16 for the full text of the H statements declared above.</b>	ATE [Oral] = 1470 mg/kg ATE [Inhalation (vapours)] = 3 mg/l M [Acute] = 10 M [Chronic] = 1	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

**SECTION 4: First aid measures**

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 vapor 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.

Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction.


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

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

See toxicological information (Section 11)

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

**Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray or mist. 

**Unsuitable extinguishing media** : Do not use water jet.

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

**Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

**Hazardous combustion products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

**5.3 Advice for firefighters**

**Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

**Special protective equipment for fire-fighters** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

**SECTION 6: Accidental release measures**

Due to the organic solvents content of the mixture:

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

**For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

## **SECTION 6: Accidental release measures**

- 6.2 Environmental precautions** : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.
- 6.3 Methods and materials for containment and cleaning up** : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## **SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

- 7.1 Precautions for safe handling** : Due to the organic solvents content of the mixture:
- Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.
- Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- Put on appropriate personal protective equipment (see Section 8).
- Never use pressure to empty. Container is not a pressure vessel.
- Always keep in containers made from the same material as the original one.
- Comply with the health and safety at work laws.
- Information on fire and explosion protection**
- Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air.

- 7.2 Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations.
- Notes on joint storage**
- Keep away from: oxidizing agents, strong alkalis, strong acids.
- Additional information on storage conditions**
- Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.
- Keep container tightly closed.
- Keep away from sources of ignition. No smoking. Prevent unauthorized access.
- Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Contaminated absorbent material may pose the same hazard as the spilled product.
- Store above 5°C (42°F) Protect from frost.

### **7.3 Specific end use(s)**

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

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.

## SECTION 7: Handling and storage

**Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.**

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
2-butoxyethanol	<b>Legislative Decree No. 819/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 6/2020).</b> <b>Absorbed through skin.</b> 8 hours: 20 ppm 8 hours. 8 hours: 98 mg/m <sup>3</sup> 8 hours. Short Term: 50 ppm 15 minutes. Short Term: 246 mg/m <sup>3</sup> 15 minutes.

#### Biological exposure indices

No exposure indices known.

#### Recommended monitoring procedures

- : Reference should be made to monitoring standards, such as the following:  
 European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- : Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-Butoxyethanol	DNEL	Short term Dermal	89 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	135 ppm	Workers	Systemic
	DNEL	Short term Inhalation	50 ppm	Workers	Local
	DNEL	Long term Dermal	75 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	20 ppm	Workers	Systemic
	DNEL	Short term Dermal	44.5 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	426 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Short term Oral	13.4 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	123 mg/m <sup>3</sup>	General population [Consumers]	Local
	DNEL	Long term Dermal	38 mg/kg	General	Systemic

## SECTION 8: Exposure controls/personal protection

	DNEL	Long term Inhalation	bw/day 49 mg/m <sup>3</sup>	population [Consumers] General population [Consumers]	Systemic
	DNEL	Long term Oral	3.2 mg/kg bw/day	General population [Consumers]	Systemic

### PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
2-Butoxyethanol	Fresh water	8.8 mg/l	-
	Marine water	0.88 mg/l	-
	Sewage Treatment Plant	463 mg/l	-
	Fresh water sediment	34.6 mg/kg dwt	-
	Marine water sediment	3.46 mg/kg dwt	-
	Soil	2.33 mg/kg dwt	-

### 8.2 Exposure controls

- Appropriate engineering controls**
- : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.
  - : Users are advised to consider national Occupational Exposure Limits or other equivalent values.

### Individual protection measures

- Hygiene measures**
- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

- Eye/face protection**
- : Use safety eyewear designed to protect against splash of liquids.

### Skin protection

### Hand protection

### Gloves

- : Wear suitable gloves tested to EN374.
- : Gloves for short term exposure/splash protection (less than 10 min): Nitrile >0.12 mm  
Gloves for splash protection need to be changed immediately when in contact with chemicals.  
Gloves for repeated or prolonged exposure (breakthrough time > 480 min): Butyl gloves >0.3 mm  
Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.  
The recommendation for the type or types of glove to use when handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG).  
There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.  
The breakthrough time must be greater than the end use time of the product.  
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.  
Gloves should be replaced regularly and if there is any sign of damage to the glove material.  
Always ensure that gloves are free from defects and that they are stored and used correctly.  
The performance or effectiveness of the glove may be reduced by physical/chemical

## SECTION 8: Exposure controls/personal protection

damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

### Body protection

: Personnel should wear protective clothing.

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Respiratory protection

: Application methods:

Brush or roller. Approved/certified respirator with organic vapor cartridge. Filter type: A2 P2 (EN14387).

Manual spraying. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

### Environmental exposure controls

: Do not allow to enter drains or watercourses.

**Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.**

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

#### Physical state

: Liquid.

#### Color

: Colorless.

#### Odor

: Paint

#### Odor threshold

: Not Available (Not Tested).

#### pH

: 8

#### Melting point/freezing point

: Not relevant/applicable due to nature of the product.

#### Initial boiling point and boiling range

: 100°C

#### Flash point

: Closed cup: 101°C [Pensky-Martens Closed Cup]

#### Evaporation rate

: 0.09 (butyl acetate = 1)

#### Flammability

: Not relevant/applicable due to nature of the product.

#### Lower and upper explosion limit

: Not relevant/applicable due to nature of the product.

#### Vapor pressure

: 2.3 kPa (17.5 mm Hg)

#### Relative vapor density

: 1 [Air = 1]

#### Relative density

: 0.68

#### Solubility(ies)

:

Media	Result
cold water	Partially soluble



## **SECTION 9: Physical and chemical properties**

**Partition coefficient: n-octanol/ water** : Not relevant/applicable due to nature of the product.

**Auto-ignition temperature** : Not relevant/applicable due to nature of the product.

**Decomposition temperature** : Not relevant/applicable due to nature of the product.

**Viscosity** : Kinematic (40°C): >20.5 mm<sup>2</sup>/s

**Explosive properties** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Oxidizing properties** : Under normal conditions of storage and use, hazardous reactions will not occur.

### **Particle characteristics**

**Median particle size** : Not relevant/applicable due to nature of the product.

## **SECTION 10: Stability and reactivity**

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.

**10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

**10.6 Hazardous decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

**Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.**

## **SECTION 11: Toxicological information**

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

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 vapor 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.

Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction.

### **Acute toxicity**

## SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
2-Butoxyethanol	LCLo Inhalation Vapor	Guinea pig	>3.1 mg/l	1 hours
	LD50 Dermal	Guinea pig	>2000 mg/kg	-
	LD50 Oral	Rat	1300 mg/kg	-
3-Iodo-2-propynyl Butyl Carbamate	LD50 Oral	Rat	1470 mg/kg	-

### Acute toxicity estimates

Route	ATE value
Inhalation (vapors)	483.87 mg/l

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

**Conclusion/Summary** : Not available.

### Sensitization

No data available

**Conclusion/Summary** : Not available.

### Mutagenicity

No data available

### Carcinogenicity

No data available

### Reproductive toxicity

No data available

### Teratogenicity

No data available

### Specific target organ toxicity (single exposure)

No data available

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
3-Iodo-2-propynyl Butyl Carbamate	Category 1	-	larynx

### Aspiration hazard

No data available

## 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Not available.

### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i>	48 hours
	Acute LC50 1250 ppm Marine water	Fish - <i>Menidia beryllina</i>	96 hours
3-Iodo-2-propynyl Butyl Carbamate	Acute LC50 500 ppb Fresh water	Crustaceans - <i>Hyaella azteca</i>	48 hours
	Acute LC50 40 ppb Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 67 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i> - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 8.4 ppb	Fish - <i>Pimephales promelas</i>	35 days

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
No data available				

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Butoxyethanol	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Orthoboric Acid, Zinc Salt	-	60960	High

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : 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 Endocrine disrupting properties

Not available.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.

**European waste catalogue (EWC)** : waste paint and varnish containing organic solvents or other hazardous substances 08 01 11\*

**Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

**European waste catalogue (EWC)** : packaging containing residues of or contaminated by hazardous substances 15 01 10\*

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA
<b>14.1 UN number or ID number</b>	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport Hazard Class(es)/ Label(s)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.
<b>Additional information</b>	-	-	-

**This mixture is not classified as dangerous according to international transport regulations (ADR/RID, IMDG, ICAO/IATA).**

**SECTION 14: Transport information**

**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** : Not applicable.

*Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.*


**SECTION 15: Regulatory information**

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

**EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorization****Annex XIV**

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

Product/ingredient name	%	Designation [Usage]
HEAT-FLEX® 3500 Thermal Insulative Coating	≥90	3 

**Labeling** : Not applicable.

**Other EU regulations**

**VOC content (2010/75/EU)** : 1.1 w/w  
7 g/l

**Explosive precursors** : Not applicable. 


**Seveso Directive**

This product is not controlled under the Seveso Directive.

**National regulations**

**15.2 Chemical Safety Assessment** : No Chemical Safety Assessment has been carried out.

**SECTION 16: Other information**

 Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

: ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative  
N/A = Not available

**SECTION 16: Other information**

**Key literature references and sources for data** : Regulation (EC) No. 1272/2008 [CLP]  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878  
Directive 2012/18/EU, and relative amendments & additions  
Directive 2008/98/EC, and relative amendments & additions  
Directive 2009/161/EU, and relative amendments & additions  
CEPE Guidelines

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Classification	Justification
Repr. 2, H361 Aquatic Chronic 3, H412	Calculation method Calculation method

**Full text of abbreviated H statements** : H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H361 Suspected of damaging fertility or the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]** : Acute Tox. 3 ACUTE TOXICITY - Category 3  
Acute Tox. 4 ACUTE TOXICITY - Category 4  
Aquatic Acute 1 AQUATIC HAZARD (ACUTE) - Category 1  
Aquatic Chronic 1 AQUATIC HAZARD (LONG-TERM) - Category 1  
Aquatic Chronic 2 AQUATIC HAZARD (LONG-TERM) - Category 2  
Aquatic Chronic 3 AQUATIC HAZARD (LONG-TERM) - Category 3  
Eye Dam. 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
Eye Irrit. 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
Repr. 2 TOXIC TO REPRODUCTION - Category 2  
Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2  
Skin Sens. 1 SKIN SENSITIZATION - Category 1  
STOT RE 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

**Date of printing** : 20, Sep, 2023.

**Date of issue/ Date of revision** : 20, Sep, 2023

**Date of previous issue** : 14, Jun, 2023

: If there is no previous validation date please contact your supplier for more information.

**Version** : 11

**Notice to reader**

**In accordance with Regulation (EC) 1907/2006, REACH Regulation, Articles 31, 37, any required hazard-related information on the use of substances received as downstream user will be sent forward. Consequently, the safety data sheets for some products will contain a SUMI - Safe Use of Mixture Information - attached to the safety data sheet.**

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II**

**HEAT-FLEX® 3500 Thermal Insulative Coating - Slate Gray**

**B59A350**

## **SECTION 16: Other information**

**SUMI(s) will be added to the SDS for products if both the following conditions are met:**

- **The product is classified as hazardous for health**
- **The product contains one or more REACH-registered substances for which extended safety data sheets (exposure scenarios) have been provided**

***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.***