

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Trade name**

Fire Guard PU Foam 587

**Product no.**

-

**REACH registration number**

Not applicable

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

**Relevant identified uses of the substance or mixture**

Sealing foam.

**Uses advised against**

For professional and industrial use only. Not recommended for DIY-use.

The full text of any mentioned and identified use categories are given in section 16

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

**Company and address**

Dana Lim A/S  
Københavnsvej 220  
DK-4600 Køge  
Denmark  
phone: +45 56 64 00 70  
fax: +45 56 64 00 90

**Contact person**

Product Safety Department

**E-mail**

info@danalim.dk

**SDS date**

2016-09-13

**SDS Version**

1.0

### 1.4. Emergency telephone number

Use your national or local emergency number

See section 4 "First aid measures"

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Aerosol 1; H222, H229  
Acute. Tox. 4; H302 + H332  
Skin Irrit. 2; H315  
Skin Sens. 1; H317  
Eye Irrit. 2; H319  
Resp. Sens. 1; H334  
STOT SE 3; H335  
Carc. 2; H351  
STOT RE 2; H373

### 2.2. Label elements

**Hazard pictogram(s)**

**Signal word**

Danger

**Hazard statement(s)**

- Extremely flammable aerosol. (H222)
- Pressurised container: May burst if heated. (H229)
- Harmful if swallowed or if inhaled. (H302 + H332)
- Causes skin irritation. (H315)
- May cause an allergic skin reaction. (H317)
- Causes serious eye irritation. (H319)
- May cause allergy or asthma symptoms or breathing difficulties if inhaled. (H334)
- May cause respiratory irritation. (H335)
- Suspected of causing cancer. (H351)
- May cause damage to organs through prolonged or repeated exposure. (H373)

<b>General</b>	If medical advice is needed, have product container or label at hand. (P101). Keep out of reach of children. (P102).
<b>Prevention</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210). Do not spray on an open flame or other ignition source. (P211). Do not pierce or burn, even after use. (P251). Do not breathe spray. (P260).
<b>Safety statement(s)</b>	Use only outdoors or in a well-ventilated area. (P271). Wear protective gloves/eye protection/face protection. (P280). [In case of inadequate ventilation] wear respiratory protection. (P284).
<b>Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338).
<b>Storage</b>	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F. (P410+P412).
<b>Disposal</b>	Dispose of contents/container to an approved waste disposal plant. (P501).

**Identity of the substances primarily responsible for the major health hazards**

Diphenyl methane diisocyanate, isomers and homologues, tris(2-chloro-1-methylethyl) phosphate, Polymer with 2-Butyne-1,4-Diol and (Chloromethyl-)Oxirane, Brominated, Dehydrochlorinated, Methoxylated, triethylphosphat

**2.3. Other hazards**

This product contains substances considered or proven carcinogenic.

**Additional labelling**

**Additional warnings**

-

**VOC**

-

**SECTION 3: Composition/information on ingredients**

**3.1/3.2. Substances/Mixtures**

NAME:	Diphenyl methane diisocyanate, isomers and homologues
IDENTIFICATION NOS.:	CAS-no: 9016-87-9
CONTENT:	40-60%
CLP CLASSIFICATION:	Acute Tox. 4, STOT RE 2, STOT SE 3, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Carc. 2
NOTE:	H315, H317, H319, H332, H334, H335, H351, H373 IP
NAME:	tris(2-chloro-1-methylethyl) phosphate
IDENTIFICATION NOS.:	CAS-no: 13674-84-5 EC-no: 237-158-7
CONTENT:	15-25%
CLP CLASSIFICATION:	Acute Tox. 4 H302
NAME:	Polymer with 2-Butyne-1,4-Diol and (Chloromethyl-)Oxirane, Brominated, Dehydrochlorinated, Methoxylated
IDENTIFICATION NOS.:	CAS-no: 86675-46-9
CONTENT:	15-25%
CLP CLASSIFICATION:	Acute Tox. 4 H302

NAME: and isobutane  
 IDENTIFICATION NOS.: CAS-no: 75-28-5 EC-no: 200-857-2 Index-no: 601-004-00-0  
 CONTENT: 5-10%  
 CLP CLASSIFICATION: Comp. Gas, Flam. Gas 1  
 H220, H280

NAME: Dimethyl ether  
 IDENTIFICATION NOS.: CAS-no: 115-10-6 EC-no: 204-065-8 REACH-no: 01-2119472128-37-xxxx Index-no: 603-019-00-8  
 CONTENT: 3-5%  
 CLP CLASSIFICATION: Comp. Gas, Flam. Gas 1  
 H220, H280  
 NOTE: S

NAME: triethylphosphat  
 IDENTIFICATION NOS.: CAS-no: 78-40-0 EC-no: 201-114-5  
 CONTENT: 1-3%  
 CLP CLASSIFICATION: Acute Tox. 4, Eye Irrit. 2  
 H302, H319

NAME: propane  
 IDENTIFICATION NOS.: CAS-no: 74-98-6 EC-no: 200-827-9 Index-no: 601-003-00-5  
 CONTENT: 1-3%  
 CLP CLASSIFICATION: Comp. Gas, Flam. Gas 1  
 H220, H280

(\*) See full text of H-phrases in chapter 16. Occupational exposure limits are listed in section 8, if these are available.

S = Organic solvent P = Prepolymer isocyanate I = Isocyanate monomer

### Other informations

ATEmix(inhale, vapour) = > 10 - 14,268  
 ATEmix(inhale, dust/mist) = 1,296 -  
 ATEmix(inhale, gas) = 3892,064 - 5838,096  
 ATEmix(Dermal) = > 1000 - 1427,088  
 ATEmix(oral) = 432,448 - 648,672  
 Eye Cat. 2 Sum = Sum(Ci/S(G)CLi) = 4,2 - 6,3  
 Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 4 - 6

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.  
 Contact a physician, if there is doubt about the injured person's condition, or the symptoms continuous.  
 Never give the unconscious person water or alike.

#### Inhalation

Place the injured person in fresh air. Make sure to watch the injured person. Prevent chock by keeping the injured person warm and calm. If the person stops breathing, give mouth-to-mouth. If unconscious, put the injured person into the natal-position. Call for an ambulance.

#### Skin contact

Remove contaminated clothing and shoes. If there has been contact to some skin, wash is thoroughly with water and soap. Skin cleansing remedies can be used. DO NOT use organic solvents or a thinner.

#### Eye contact

Remove contact lenses and open eyes widely. Flush eyes with water or saline water(20-30°C) for at least 15 minutes. Seek medical assistance and continue flushing during transport.

#### Ingestion

In case of ingestion, contact a physician right away and bring this safety data sheet or the label from the material. If the person is conscious, give him/her water. DO NOT try to induce vomiting, unless recommended by a physician. Lower the person's head, to prevent the vomit of running back into the mouth and throat. In order to prevent chock, keep the person warm and calm. If breathing stops, give mouth-to-mouth. When unconscious; bring the injured into the natal-position. Call for an ambulance.

#### Burns

Rinse with water until the pain stops and continue for 30 minutes.

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

Carcinogenic effects: This product contains substances which are considered or proven to be carcinogenic. The danger may lie in inhalation, skin contact or ingestion.

Sensibilising effects: This product contains substances which can cause allergies when contact to skin.

The reaction of the allergy will typically set in within 12-72 hours after penetration through the skin, and will react with the proteins in the outer layer. The bodies immune system will perceive the strange chemical

protein as a foreign body and will try to break it down.

**Sensibilising effects:** This product contains substances which can cause allergies when inhaled. The reaction of the allergy will typically set in within an hour after exposure to the allergen and will give an inflammatory reaction in the lungs.

**Irritable effects:** This product contains substances which are irritable to skin and eyes, or when inhaled. A result of contact with a locally irritable substances, can be, that the area of contact, will be more pruned to take-in of damaging substances such as allergens.

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

Non specific.

##### **Information to medics**

Bring this safety data sheet.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

Recommendation: alcohol resistant foam, carbonic acid, powder, fog. Usage of a water beam is forbidden, since it can spread the fire.

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

If the product gets exposed to high temperature, as in case of a fire, dangerous demolition products get created. These are: Carbon oxides. If exposed to decomposition products, a danger to one's health is at risk. Fire fighters should use proper protection gear. A closed container, which is exposed to fire, should be cooled with water. Do not allow the water from the fire extinction run into sewer systems and water streams.

#### **5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact.

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

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

Avoid inhalation of vapours from waste material. Avoid direct contact with spilled substances. Cool a non ignited storage with fog. If possible, remove flammable materials. Make sure there is plenty of ventilation.

#### **6.2. Environmental precautions**

Avoid spreading to lakes, streams, sewers etc. In case of an outlet, to the surroundings, contact the local environmental government. In order to prevent outlet to the surroundings, put up waste collecting trays/basins.

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

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. If possible, clean with cleaning supplies. Solvents should be avoided.

#### **6.4. Reference to other sections**

See section 13 regarding handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

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

#### **7.1. Precautions for safe handling**

Avoid static electricity Protect electrical equipment according to valid norms. Ground the containers and get them connected with the receiving containers with a wire, to divert static electricity during transmission. Smoking, consumption of food and liquids as well as storage of tobacco, foods and liquids is not allowed in the room. See section on 'Exposure controls/personal protection' for information on personal protection. Avoid direct contact with the product.

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

Always store in the same container as the original material. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Needs to be stored in a cool and ventilated area, away from possible fire hazardous materials.

##### **Storage temperature**

Protect from heat/overheating.

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

This product should only be used for applications described in Section 1.2

### **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

### OEL

Dimethyl ether (EH40/2005)

Long-term exposure limit (8-hour TWA reference period): 400 ppm | 766 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 500 ppm | 958 mg/m<sup>3</sup>

Diphenyl methane diisocyanate, isomers and homologues

Long-term exposure limit (8-hour TWA reference period): - ppm | 0,02 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): - ppm | 0,07 mg/m<sup>3</sup>

### DNEL / PNEC

## 8.2. Exposure controls

Compliance with the stated exposure limits values should be checked on a regular basis.

### General recommendations

Observe general occupational hygiene.

### Exposure scenarios

If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

### Exposure limits

Trade users should encompass the rules of the work environment legislation on maximum concentrations of exposure. See work hygienic threshold limiting values below.

### Appropriate technical measures

Do not recirculate outlet air that contain the substances. Airborne gas and dust concentrations must be kept lowest possible and under the existing threshold limiting values (see below). In case the air streams in the work room is not sufficient, use for example an exhaust. Make sure there are visible signs for eye cleanser and shower.

### Hygiene measures

Wash hands before breaks and at the end of work.

### Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible collect spillage during work.

### Individual protection measures, such as personal protective equipment



### Generally

Use only CE marked protective equipment.

### Respiratory Equipment

Recommended: A. Class 1 (low capacity). Brown

### Skin protection

specific work clothing should be used. When working with this product for a longer period of time, use protection gear.

### Hand protection

Recommended: Nitrile rubber. Discard immediately after use

### Eye protection

Use safety glasses with a side shield.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Form	Aerosol
Colour	Red
Odour	Characteristic
pH	No data available.
Viscosity	No data available.
Density (g/cm <sup>3</sup> )	1,292

### Phase changes

Melting point (°C)	No data available.
Boiling point (°C)	-1
Vapour pressure	4 Pa
<b>Data on fire and explosion hazards</b>	
Flashpoint (°C)	-1
Ignition (°C)	No data available.
Self ignition (°C)	240
Explosion limits (Vol %)	No data available.
<b>Solubility</b>	
Solubility in water	Insoluble
n-octanol/water coefficient	No data available.
<b>9.2. Other information</b>	
Solubility in fat (g/L)	No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7.

### 10.3. Possibility of hazardous reactions

Non specific.

### 10.4. Conditions to avoid

Avoid static electricity

### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reductants agents.

### 10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

Substance	Species	Test	Route of exposure	Result
Diphenyl methane diisocyanate,...	Rat	LC50	Inhalation	490 mg/m <sup>3</sup> , 4h
Diphenyl methane diisocyanate,...	Rat	LD50	Oral	>2000 mg/kg

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

Suspected of causing cancer.

#### Reproductive toxicity

No data available.

#### STOT-single exposure

May cause respiratory irritation.

#### STOT-repeated exposure

May cause damage to organs.

#### Aspiration hazard

No data available.

#### Long term effects

Carcinogenic effects: This product contains substances which are considered or proven to be carcinogenic. The danger may lie in inhalation, skin contact or ingestion.

Irritable effects: This product contains substances which are irritable to skin and eyes, or when inhaled. A result of contact with a locally irritable substances, can be, that the area of contact, will be more pruned to take-in of damaging substances such as allergens.

## SECTION 12: Ecological information

### 12.1. Toxicity

Substance	Species	Test	Duration	Result
Diphenyl methane diisocyanate,...	Daphnia	EC50	24h	>1000 mg/l

### 12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
No data available.			

### 12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
No data available.			

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Other adverse effects

No special

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

The product should be treated as dangerous waste.

#### Waste

EWC code  
16 05 04

#### Specific labelling

-

#### Contaminated packing

Contaminated packaging should be disposed of the same way as the product itself.

## SECTION 14: Transport information

### 14.1 – 14.4

This product is included in the regulation of dangerous goods.

#### ADR/RID

14.1. UN number	1950
14.2. UN proper shipping name	-
14.3. Transport hazard class(es)	2.1
14.4. Packing group	-
Notes	LQ 1 I
Tunnel restriction code	D

#### IMDG

UN-no.	1950
Proper Shipping Name	AEROSOLS, flammable
Class	2.1
PG*	-
EmS	F-D, S-U
MP**	No
Hazardous constituent	Isocyanates

#### IATA/ICAO

UN-no.	1950
Proper Shipping Name	AEROSOLS, flammable
Class	2.1
PG*	-

### 14.5. Environmental hazards

-

### 14.6. Special precautions for user

-

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

No data available

(\*) Packing group  
(\*\*) Marine pollutant

## SECTION 15: Regulatory information

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

#### Restrictions for application

People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC. Pregnant and nursing women may not be exposed to affects from this product,.

#### Demands for specific education

In order to work with polyurethane and epoxy products, the user has to have gone through special training.

#### Additional information

-

#### Sources

COUNCIL DIRECTIVE 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Council Directive 75/324/EEC of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP). EC regulation 1907/2006 (REACH).

### 15.2. Chemical safety assessment

No

## SECTION 16: Other information

### Full text of H-phrases as mentioned in section 3

H220 - Extremely flammable gas.

H280 - Contains gas under pressure; may explode if heated.

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation.

H351 - Suspected of causing cancer.

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

### The full text of identified uses as mentioned in section 1

-

### Other symbols mentioned in section 2



### Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

### The safety data sheet is validated by



According to EC-Regulation 2015/830

Robert Pedersen

**Date of last essential change  
(First cipher in SDS version)**

-

**Date of last minor change  
(Last cipher in SDS version)**

-

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