in accordance with Regulation (EC) No. 1907/2006

Date: 13.11.2014 Rev. 09 Page 1 of 7

1. Substance/compound details and company details

1.1. Product identifiers

Product name: PYRO-SAFE FLAMMOPLAST KS 1

PYRO-SAFE FLAMMOPLAST KS 1 – W PYRO-SAFE FLAMMOPLAST KS 3

1.2. Relevant identified uses of the substance/compound, and uses that are advised against

Recommended use: Fire protection material

1.3. Producer

svt Brandschutz Vertriebsgesellschaft mbH International

Gluesinger Str. 86 D-21217 Seevetal Tel.: +49-4105-4090-0

msds@svt.de

1.4. Emergency hotline

DE: +49-172-4090-400

Division providing information: Zentrale Technik

2. Potential hazards

2.1. Classification of the substance or compound

In accordance with Regulation (EC) No. 1272/2008		
Hazard class / Hazard category	Hazard information	
Hazardous to the aquatic environment — chronic,	H412	
Category 3		

In accordance with Directive 67/548/EEC or 1999/45/EC		
Hazard characteristics	R phrase/phrases	
Dangerous for the environment	R52/53	

2.2. Identification elements

in accordance with Regulation (EC) No. 1272/2008

Pictograms none Signal word none

Hazard information

H412 Harmful to aquatic life with long lasting effects

Safety instructions

P273 Avoid release to the environment

P501 Dispose of contents/container to recycling/reconditioning system

In accordance with Directive 67/548/EEC or 1999/45/EC

Hazard symbol(s) none

Hazard information

R52/53 Harmful to aquatic organisms; may cause long-term adverse effects in the aquatic

environment.

Safety instructions

S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

in accordance with Regulation (EC) No. 1907/2006

Date: 13.11.2014 Rev. 09 Page 2 of 7

2.3. Other hazards

Risk of slipping – the product produces a slippery surface.

3. Composition / specifications of the constituents

3.1. Chemical characterisation

Substance □ Preparation ■

Aqueous polyvinyl acetate dispersion with organic and inorganic fillers/pigments.

Constituent	CAS No.	EINECS No. Classification		Classification	Concentratio
			(1272/2008/EC)	(67/548/EEC)	n (%)
Triphenyl	115-86-6	204-112-2	Aquatic Acute 1, H400	N, R50/53	< 0.5
phosphate			Aquatic Chronic 1, H410		

4. First-aid measures

4.1. First-aid measures

Inhalation

- Move affected persons to fresh air.
- In case of breathing difficulties, seek immediate medical assistance.

Eye contact

- IMMEDIATELY rinse the eyes for at least 15 minutes with running water, keeping the eye lids wide open.
- If the eyes continue to hurt, consult an eye specialist.

Skin contact

- Immediately remove all soiled and contaminated clothing. Immediately remove all soiled and contaminated clothing.
- Wash affected skin areas with water and soap.

Ingestion

- Rinse the mouth and spit out the liquid.
- Slowly administer one to two glasses of water.
- Provide for medical treatment.

4.2. Acute and delayed symptoms and effects

- Indicators of eye or skin irritation: burning, reddened or swollen eye/skin

4.3. Indicators for immediate medical aid or special treatment

- Treatment depends on symptoms. No specific antidote.

5. Fire-fighting measures

5.1 Appropriate extinguishing agents

Appropriate extinguishing agents

- Sprayed water jet, water mist, foam, dry extinguishing powder, carbon dioxide, sand or soil.

Inappropriate extinguishing agents

Full water jet

5.2. Special hazards

- If possible, remove threatened containers from the danger zone. Be sure to protect yourself!
- Rising pressure, risk of bursting and explosion when heated. Spray the containers with water for cooling.
- Dangerous gases/vapours can also be generated in a surrounding fire (see section 10).

5.3. Fire-fighting instructions

- Use self-contained breathing apparatus for operations in the immediate vicinity of a fire or in closed rooms
- Equipment must be cleaned after every use (take a shower, thoroughly clean and check clothing).

5.4 Additional precautions

- Water must be used in a controlled manner to avoid any potential environmental hazards (see section 6).

in accordance with Regulation (EC) No. 1907/2006

Date: 13.11.2014 Rev. 09 Page 3 of 7

6. Accidental release measures

6.1. Precautions for the protection of individuals, protective equipment, and action in an emergency

- Observe the protection measures given in 8 below.
- Product produces a slippery surface.
- Avoid direct contact with the product.
- Do not inhale any vapours/aerosols.

6.2. Environmental protection measures

- If considerable amounts of the product are released, the responsible authority must be informed without delay.
- Do not discharge into the environment (sewers, rivers, soil, etc.)

6.3. Containment/cleaning methods and material

- Absorb product with inert, liquid binding material (e.g. sand, soil, kieselguhr, universal binder).
- Fill everything into a closed and marked container that is compatible with the product.
- For disposal, see section 13.

7. Handling and storage

7.1. Protection measures for safe handling

- Never leave containers open.
- Do not inhale any vapours/aerosols.
- For further information regarding use and handling, please refer to the "Technical Data Sheet".
- Staff must be adequately informed of potential product hazards.

7.2. Conditions for safe storage with a view to incompatibilities

- Store only in the closed original package.
- Store in a well-ventilated dry area.
- To be protected against frost.
- Keep away from direct sunlight.
- Store away from food and feedstuffs.

7.3 Specific final application

- Intumescent paint or trowelling compound for fire protection systems. Consult the supplier before every special application.

7.4 Additional storage details

VCI storage class: 12

8. Exposure controls / personal protection

8.1. Exposure limit values

Component CAS No.	Source	OEL	Comments
Triphenyl phosphate 115-86-6		3 mg/m³	Limit, 8 hours (Austria, Belgium, Denmark, France, Spain, Switzerland, England)
		6 mg/m³	Limit, short-term (Austria, Denmark, England)

8.2. Exposure controls

- Observe the measures given in 7 above.
- Adequate local ventilation, by extraction at the place at which vapours are released.
- The provided details do not relate to the product; they are specifications for the constituent triphenyl phosphate that is present at a concentration of less than 0.5 %.

in accordance with Regulation (EC) No. 1907/2006

Date: 13.11.2014 Rev. 09 Page 4 of 7

Personal protective equipment

Breathing protection

- In case of short-term or low-level exposure: P2 particle filter.
- In case of intensive or long-term exposure: use self-contained breathing apparatus.
- Only use respirators that comply with international/national standards.

Hand protection

- Chemicals-resistant protective gloves
- Recommended material: butyl rubber, nitrile rubber, fluoro rubber, PVC

Eye protection

- Protective goggles, wrap-around glasses
- The eye protection that is worn from case to case must match the used respirator.

Body protection

- Wear industrial protective clothing and non-slip shoes.

Industrial hygiene

- Shower and eye douche.
- Never eat, drink or smoke while you are working.
- Immediately remove all soiled and contaminated clothing. Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at end of work.
- Ask the responsible company medical officer or safety engineer for advice on suitable personal protective equipment under the given working conditions.

9. Physical and chemical characteristics

9.1. Details of fundamental physical and chemical characteristics

Appearance: highly viscous liquid PYRO-SAFE FLAMMOPLAST KS 1

highly viscous liquid PYRO-SAFE FLAMMOPLAST KS 1 - W highly pasty liquid PYRO-SAFE FLAMMOPLAST KS 3

Colour: white or grey
Odour: almost odourless

pH value: 8.0 – 8.8 (10 % in water)

Melting point/range: n.s.

Boiling point/range: approx.100 °C

Flash point n.s.

Evaporation rate: n.s.

Flammability: n.s.

Explosion risk: n.s.

Vapour pressure: n.s.

Density: $1.2 - 1.37 \text{ g/cm}^3$

Temperature: 20 °C water soluble

Solubility: water s
Partition coefficient n.s.

(n-octanol/water)

Self-ignition temperature: n.s.

Viscosity: 8,000 – 12,500 mPas (20 °C) PYRO-SAFE FLAMMOPLAST KS 1

8,000 – 12,500 mPas (20 °C) PYRO-SAFE FLAMMOPLAST KS 1-W no specifications PYRO-SAFE FLAMMOPLAST KS 3

Explosive characteristics: n.s. Oxidising characteristics: n.s.

10. Stability and reactivity

10.1. Reactivity

- No specific details.

10.2. Chemical stability

- Stable under normal conditions of use.

10.3. Potential dangerous reactions

No dangerous reactions under normal conditions of use.

in accordance with Regulation (EC) No. 1907/2006

Date: 13.11.2014 Rev. 09 Page 5 of 7

10.4. Conditions to be avoided

- See item 7.

10.5. Incompatible materials

- Strong acids and Iyes.

10.6. Dangerous decomposition products

- At high temperatures: formation of carbon monoxide, carbon dioxide, nitrogen oxides and ammonia.

11. Toxicological information

11.1. Information about toxicological effects

The provided details do not relate to the product; they are specifications for the constituent triphenyl phosphate that is present at a concentration of less than 0.5 %.

Acute toxicity

Acute oral toxicity (rat)
 Acute dermal toxicity (rabbit)
 Inhalation toxicity (rat)
 LD 50 > 15800 mg/kg (triphenyl phosphate)
 LD 50 > 7940 mg/kg (triphenyl phosphate)
 LC 50 > 6.3 mg/l (4h) (triphenyl phosphate)

Irritation

- Skin (rabbit): mild irritation possible
- Eye (rabbit): mild irritation possible

Corrosivity

- No corrosive effect known.

Sensitisation

- Guinea pigs: no sensitising effect known.

Repeated administration toxicity

No test data are available for this product.

Carcinogenicity

No data available.

Germ cell mutagenicity

No data available for this product.

Reproductive toxicity

- No data available for this product.

11.2 Toxicological tests

Additional information

No details are available about the formulation.

Practical experience

Proper handling and compliance with industrial hygiene requirements provided, effects that are injurious to health do not have to be expected to arise from this product. In case of skin contact: repeated and persistent skin contact may cause irritation and inflammation of the skin.

Additional toxicological information

The product as such has not been tested. Its toxicological classification is based on the results produced with the calculation method of the General Preparation Directive (1999/45/EC). Our experience shows that effects that are injurious to health do not arise from the product, provided it is properly handled and used in compliance with its intended purpose.

12. Ecological information

The provided details do not relate to the product; they are specifications for the constituent triphenyl phosphate that is present at a concentration of less than 0.5 %.

12.1. Toxicity

Toxicity to fish:

Trout, LC50, 96 hrs.

7.6 mg/l (triphenyl phosphate)
Minnow, LC50, 96 hrs.

18 mg/l (triphenyl phosphate)

in accordance with Regulation (EC) No. 1907/2006

Date: 13.11.2014 Rev. 09 Page 6 of 7

- Toxicity to daphnia:

Daphnia magna, EC50, 48 hrs. 0.5 mg/l (triphenyl phosphate)

Toxicity to algae:

Algae, IC50, 96 hrs. 79 mg/l (triphenyl phosphate)

12.2. Persistence and degradability

- Triphenyl phosphate:

Easily biologically degradable (63 % 28 days)

Rivers: 93.5 % 21 days

12.3. Bioaccumulation potential

- LogPow: 5.43 (triphenyl phosphate:)

12.4. Mobility

- No specifications.

12.5. Results of PBT and vPvB assessment

- No specific data available.

12.6. Other harmful effects

- Water hazard class 2 hazardous to water
- Must not be allowed to enter ground water, water courses or sewer systems in the non-diluted state and/or in large amounts.

13. Disposal considerations

13.1. Waste treatment methods

Product disposal

- Local and national regulations must be complied with when disposing of the product.
- Under what waste code number in compliance with the European Waste Catalogue (EWC) the
 material has to be classified depends on the final application. The relevant classification has to be
 defined together with the regional disposal contractor.
- Recommendation:

EWC 080120 aqueous suspensions containing paint or varnish, except

for those that fall under number 080119.

EWC 080112 hardened waste paint and varnish

Handling of packages

- To be disposed of in compliance with official regulations.
- Containers to be cleaned and recycled.

14. Transport information

	Road transport ADR	Rail transport RID	Inland waterway transport ADN	Sea transport IMDG	Air transport IATA
14.1. UN-Nr.	No hazardous substance as defined in the transport regulations.				
14.2. Shipping name	No hazardous substance as defined in the transport regulations.				
14.3. Class	No hazardous substance as defined in the transport regulations.				
14.4. Packaging group	No hazardous substance as defined in the transport regulations.				
14.5. Environmental hazards	No hazardous substance as defined in the transport regulations.				

in accordance with Regulation (EC) No. 1907/2006

Date: 13.11.2014 Rev. 09 Page 7 of 7

14.6. Special precautions for the user	No hazardous substance as defined in the transport regulations.
Handle 14.7. Bulk cargo in accordance with MARPOL 73/78 and IBC Code	No hazardous substance as defined in the transport regulations.

15. Regulatory information

15.1. Regulations concerning safety, health and environmental protection / special regulatory information

National regulations

- Water hazard class (WGK) = 2
- Classification in accordance with the BetrSichV industrial safety regulations: does not apply
- Technical instructions on air quality control (TA Luft): does not apply
- VOC regulation: < 10 %

16. Additional information

Last revision

Complete revision

Abbreviations used in this data sheet

n.a. not applicable n. s.: no specifications

References and data sources

EC Directive 67/548/EEEC and EC Directive 1999/45/EC

Regulation (EC) 1907/2006 (REACH)

Regulation (EC) 1272/2008

National limit of air pollution

Transport regulations in accordance with ADR, RID, IMDG, IATA (as amended)

Internal data

Wording of the hazard information in sections 2 and 3 (GHS classification)

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

Wording of the R phrases in sections 2 and 3 (EU classification)

50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment 52/53 Harmful to aquatic organisms; may cause long-term adverse effects in the aquatic environment

The details in this Safety Data Sheet are based on our current knowledge and experience. They are to provide a description of the safety requirements to be observed in connection with our products, and are therefore not meant to warrant any specific characteristics. The conditions at the user's workplace are beyond our knowledge and control. An approval must be obtained, before the product may be used for purposes other than those mentioned in Chapter 1. The user is responsible for ensuring that all relevant legal provisions are complied with.