

Printing date 05/29/2018

Reviewed on 04/10/2015

1 Identification

- **Product identifier**
- **Trade name:** APF 77/1 R
- **Article number:** 1025650
- **Application of the substance / the mixture** Flame retardant polyester filler
- **Details of the supplier of the safety data sheet** SikaAxson US - EHS Department
- **Manufacturer/Supplier:**
Company Name: Axson Technologies US, Inc.-SikaAxson

Headquarters:
 31200 Stephenson Hwy
 Madison Heights, MI 48071
 USA

Manufacturing Site:
 1611 Hults Drive
 Eaton Rapids, MI 48827
 USA
 ehs-us@axson.com

- **Information department:** Product safety department
- **Emergency telephone number:**
 During normal opening times: +1 (248) 588-2270
 CHEMTREC 24-hour Emergency: +1 (800) 424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.
 STOT SE 2 H371 May cause damage to organs.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
 Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2A H319 Causes serious eye irritation.

Aquatic Acute 2 H401 Toxic to aquatic life.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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· Hazard pictograms



GHS02 GHS07 GHS08

· Signal word *Warning*

· Hazard-determining components of labeling:

*Styrene**tris(methylphenyl) phosphate*

· Hazard statements

*Flammable liquid and vapor.**Harmful if swallowed.**Causes skin irritation.**Causes serious eye irritation.**Suspected of causing cancer.**May cause damage to organs.**Toxic to aquatic life.*

· Precautionary statements

*Avoid breathing dust/fume/gas/mist/vapors/spray**Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Ground/bond container and receiving equipment.**Use explosion-proof electrical/ventilating/lighting/equipment.**Do not breathe dust/fume/gas/mist/vapors/spray.**Wear protective gloves/protective clothing/eye protection/face protection.**If swallowed: Call a poison center/doctor if you feel unwell.**If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

· Classification system:

· NFPA ratings (scale 0 - 4)

*Health = 2**Fire = 3**Reactivity = 0*

· HMIS-ratings (scale 0 - 4)

*Health = 2**Fire = 3**Reactivity = 0*

· Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

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3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 100-42-5 EINECS: 202-851-5	Styrene	10-20%
CAS: 26444-49-5 EINECS: 247-693-8	diphenyl tolyl phosphate	≥2.5-<5%
CAS: 115-86-6 EINECS: 204-112-2	triphenyl phosphate	≥1-<2.5%
CAS: 67762-90-7	Silicones and siloxanes, dimethyl-, reaction products with silica	1-5%
CAS: 1330-78-5 EINECS: 215-548-8	tris(methylphenyl) phosphate	≥0.25-<1%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

100-42-5	Styrene	20 ppm
21645-51-2	aluminium hydroxide	8.7 mg/m ³
26444-49-5	diphenyl tolyl phosphate	4.3 mg/m ³
108-78-1	melamine	30 mg/m ³
115-86-6	triphenyl phosphate	9 mg/m ³
13463-67-7	titanium dioxide	30 mg/m ³
67762-90-7	Silicones and siloxanes, dimethyl-, reaction products with silica	120 mg/m ³
546-93-0	Magnesite	45 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³
100-41-4	ethylbenzene	33 ppm

- **PAC-2:**

100-42-5	Styrene	130 ppm
21645-51-2	aluminium hydroxide	73 mg/m ³
26444-49-5	diphenyl tolyl phosphate	47 mg/m ³
108-78-1	melamine	340 mg/m ³
115-86-6	triphenyl phosphate	360 mg/m ³
13463-67-7	titanium dioxide	330 mg/m ³
67762-90-7	Silicones and siloxanes, dimethyl-, reaction products with silica	1,300 mg/m ³
546-93-0	Magnesite	260 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	740 mg/m ³
100-41-4	ethylbenzene	1100* ppm

- **PAC-3:**

100-42-5	Styrene	1100* ppm
21645-51-2	aluminium hydroxide	440 mg/m ³
26444-49-5	diphenyl tolyl phosphate	280 mg/m ³
108-78-1	melamine	630 mg/m ³
115-86-6	triphenyl phosphate	2,100 mg/m ³
13463-67-7	titanium dioxide	2,000 mg/m ³

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67762-90-7	Silicones and siloxanes, dimethyl-, reaction products with silica	7,900 mg/m ³
546-93-0	Magnesite	1,600 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m ³
100-41-4	ethylbenzene	1800* ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

100-42-5 Styrene

ACGIH TLV	Short-term value: 170 at 40 ppm mg/m ³ Long-term value: 85 at 20 ppm mg/m ³
OSHA PEL	Long-term value: 100 ppm mg/m ³ Ceiling limit value: 200 ppm mg/m ³
PEL	Long-term value: 100 ppm Ceiling limit value: 200; 600* ppm *5-min peak in any 3 hrs
REL	Short-term value: 425 mg/m ³ , 100 ppm Long-term value: 215 mg/m ³ , 50 ppm
TLV	Short-term value: (170) mg/m ³ , (40) ppm Long-term value: (85) NIC-8.5 mg/m ³ , (20) NIC-2 ppm BEI, NIC-A3, NIC-OTO

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.

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Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes and skin.

- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Pasty
Color:	White
Odor:	Aromatic
Odor threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	145 °C (293 °F)

- **Flash point:** 31 °C (87.8 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 490 °C (914 °F)

- **Decomposition temperature:** Not determined.

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· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	0.9 Vol %
Upper:	6.8 Vol %
· Vapor pressure at 20 °C (68 °F):	6 hPa (4.5 mm Hg)
· Density at 20 °C (68 °F):	1 g/cm ³ (8.35 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
VOC content:	18.50 %
	185.0 g/l / 1.54 lb/gl
Solids content:	56.5 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
- ?
- Carbon monoxide and carbon dioxide

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11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

· LD/LC50 values that are relevant for classification:

100-42-5 Styrene

Oral	LD50	316 mg/kg (rat)
Inhalative	LC50/4 h	24 mg/l (rat)

- Primary irritant effect:
 - on the skin: Irritant to skin and mucous membranes.
 - on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful
Irritant
- Carcinogenic categories

· IARC (International Agency for Research on Cancer)

14807-96-6	Talc (Mg3H2(SiO3)4)	3
100-42-5	Styrene	2B
108-78-1	melamine	3
13463-67-7	titanium dioxide	2B
7631-86-9	silicon dioxide, chemically prepared	3
100-41-4	ethylbenzene	2B

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

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 · **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, IMDG, IATA** UN1866
- **UN proper shipping name**
- **DOT** Resin solution
- **IMDG, IATA** RESIN SOLUTION
- **Transport hazard class(es)**
- **DOT**
- 
- **Class** 3 Flammable liquids
- **Label** 3
- **IMDG, IATA**
- 
- **Class** 3 Flammable liquids
- **Label** 3
- **Packing group**
- **DOT, IMDG, IATA** III
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Warning: Flammable liquids
- **Danger code (Kemler):** 30
- **EMS Number:** F-E,S-E
- **Stowage Category** A
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

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· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 60 L
On cargo aircraft only: 220 L

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 1866 RESIN SOLUTION, 3, III

15 Regulatory information

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

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

100-42-5 Styrene

· **TSCA (Toxic Substances Control Act) (Substances not listed):**

All ingredients are listed.

· **Chemicals regulated by TSCA Section 12(b)**

None of the ingredients is listed.

· **Chemical regulated by TSCA 5(a)(2)rule:**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

100-42-5 Styrene

13463-67-7 titanium dioxide

100-41-4 ethylbenzene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

100-41-4 ethylbenzene

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· TLV (Threshold Limit Value established by ACGIH)

14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	A4
115-86-6	triphenyl phosphate	A4
13463-67-7	titanium dioxide	A4
100-41-4	ethylbenzene	A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

13463-67-7	titanium dioxide
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· Listed in CWC Regulations

None of the ingredients is listed.

· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms


GHS02 GHS07 GHS08

· Signal word Warning

· Hazard-determining components of labeling:

Styrene

tris(methylphenyl) phosphate

· Hazard statements

Flammable liquid and vapor.

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

Suspected of causing cancer.

May cause damage to organs.

Toxic to aquatic life.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Do not breathe dust/fume/gas/mist/vapors/spray.

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

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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· **Date of preparation / last revision** 05/29/2018 / 5

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Carc. 2: Carcinogenicity – Category 2

STOT SE 2: Specific target organ toxicity (single exposure) – Category 2

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

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