





Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Astro ISS-S Paint

Product code : AFFPTISS

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

Company name : Astroflame (Fire Seals) Ltd.

Intumescent House

Unit 8

The Io Centre
Stephenson Road
Segensworth
Fareham
England
PO15 5RU

Tel : 01329 844 500 Fax : 01329 844 600

Email : sales@astroflame.com

1.4. Emergency telephone number

Emergency tel : 01329 844 500 (office hours only)

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]

Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373

Asp. Tox. 1, H304

Aquatic Chronic 3, H412

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

2.2. Label elements

Label elements Hazard pictograms :







Signal word : Danger

T - 01329 844500 F - 01329 844600 Page 2 W - www.astroflame.com E - sales@astroflame.com



2.2. Label elements (continued)

Hazard statements : Flammable liquid and vapour.

Harmful if swallowed.

May be fatal if swallowed and enters airways.

Causes skin irritation.

Causes serious eye irritation. May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention Wear protective gloves. Wear eye or face protection. Keep away from

heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Do not breathe vapour.

ResponseIF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT

induce vomiting.

Storage Not applicable.

Disposal Not applicable.

Hazardous ingredients Ammonium Polyphosphate

Xylene, mixed isomers

Hydrocarbons, C9, aromatics FOR INDUSTRIAL USE ONLY

Supplemental label elements

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

articles

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.

Other hazards which do not result in classification

None known.

T - 01329 844500 F - 01329 844600 Page 3 W - www.astroflame.com E - sales@astroflame.com



Section 3: Composition/information on ingredients

3.2. Mixtures

| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Туре |
|-------------------------|---------------------|-----------|---|---------|
| Ammonium | EC: 269-789-9 | ≥25 - ≤50 | Acute Tox. 4, H302 | [1] |
| Polyphosphate | CAS: 68333-79-9 | | Eye Irrit. 2, H319 | Ì |
| Xylene, mixed isomers | REACH #: | ≥10 - <25 | Flam. Liq. 3, H226 | [1] [2] |
| | 01-2119488216-32 | | Acute Tox. 4, H312 | |
| | EC: 215-535-7 | | Acute Tox. 4, H332 | |
| | CAS: 1330-20-7 | | Skin Irrit. 2, H315 | |
| | Index: 601-022-00-9 | | Eye Irrit. 2, H319 | |
| | | | STOT SE 3, H335 | |
| | | | STOT RE 2, H373 | |
| | | | Asp. Tox. 1, H304 | |
| Hydrocarbons, C9, | REACH #: | ≤5 | Flam. Liq. 3, H226 | [1] |
| aromatics | 01-2119455851-35 | | STOT SE 3, H335 | |
| | CAS: 64742-95-6 | | STOT SE 3, H336 | |
| | Index: 649-356-00-4 | | Asp. Tox. 1, H304 | |
| | | | Aquatic Chronic 2, H411 | |
| | | | EUH066 | |
| Ethylbenzene | REACH #: | ≤5 | Flam. Liq. 2, H225 | [1] [2] |
| | 01-2119489370-35 | | Acute Tox. 4, H332 | |
| | EC: 202-849-4 | | STOT RE 2, H373 (hearing organs) | |
| | CAS: 100-41-4 | | Asp. Tox. 1, H304 | |
| | Index: 601-023-00-4 | | Aquatic Chronic 3, H412 | |
| Zinc Borate | EC: 235-804-2 | ≤1.7 | Repr. 2, H361 (inhalation) | [1] |
| | CAS: 12767-90-7 | | Aquatic Acute 1, H400 (M=1) | |
| | | | Aquatic Chronic 1, H410 (M=1) | |
| | | | See Section 16 for the full text of the H | |
| | | | statements declared above. | |

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 or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

<u>Type</u>

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

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 recognised skin cleanser. Do NOT use solvents or

thinners.

Ingestion: If swallowed, seek medical advice immediately and show the 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

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.

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

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms

may be delayed. The exposed person may need to be kept under

medical surveillance for 48 hours.

Specific treatments: No specific treatment.

See toxicological information (Section 11)

T - 01329 844500 F - 01329 844600 Page 5 W - www.astroflame.com E - sales@astroflame.com



ction 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media Recommended: alcohol-resistant foam, carbon dioxide, powders.

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.

Decomposition products may include the following materials: carbon **Hazardous combustion products**

monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3. Advice for fire-fighters

Special protective actions Cool closed containers exposed to fire with water. Do not release runoff

for fire-fighters from fire to drains or watercourses.

Special protective Fire-fighters should wear positive pressure self-contained breathing

equipment for fire-fighters apparatus (SCBA) and full turnout gear.

ection 6: Accidental release measures

5.1. Personal precautions, protective equipment and emergency procedures

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

If specialised clothing is required to deal with the spillage, take note of For emergency responders

any information in Section 8 on suitable and unsuitable materials. See

also the information in "For non-emergency personnel".

6.2. Environmental precautions

Do not allow to enter drains or watercourses. If the product **Environmental precautions**

contaminates lakes, rivers, or sewers, inform the appropriate

authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Methods and material Contain and collect spillage with non-combustible, absorbent material for containment and 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

cleaning up

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.

T - 01329 844500 F - 01329 844600 W - www.astroflame.com E - sales@astroflame.com



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

Handling requirements

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour 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.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

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.

Do not allow to enter drains or watercourses.

Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2. Conditions for safe storage, including any incompatibilities

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising 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 away from sources of ignition. No smoking.

Prevent unauthorised 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 spilt product. Store in closed original container at temperatures between 5°C and 25°C.

T - 01329 844500 F - 01329 844600 Page 7 W - www.astroflame.com E - sales@astroflame.com



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.

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 |
|-------------------------|---|
| Xylene, mixed isomers | EH40/2005 WELs (United Kingdom (UK), 8/2018). |
| | Absorbed through skin. |
| | STEL: 441 mg/m³ 15 minutes. |
| | TWA: 50 ppm 8 hours. |
| | TWA: 220 mg/m ³ 8 hours. |
| | STEL: 100 ppm 15 minutes. |
| Ethylbenzene | EH40/2005 WELs (United Kingdom (UK), 8/2018). |
| | Absorbed through skin. |

Recommended monitoring procedures

- If this product contains ingredients with exposure limits, personal,

 workplace atmosphere or biological monitoring may be required
 to determine the effectiveness of the ventilation or other control
 measures and/or the necessity to use respiratory protective
 equipment. 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.

T - 01329 844500 F - 01329 844600 Page 8 W - www.astroflame.com E - sales@astroflame.com



DNELs/DMELs

| Product/ingredient name | Туре | Exposure | Value | Population | Effects |
|-----------------------------|------|--------------------------|----------------------------|--|----------|
| Xylene, mixed isomers | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Dermal | 108 mg/kg bw/day | General population [Human via the environment] | Systemic |
| | DNEL | Long term Inhalation | 77 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 289 mg/ m³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 289 mg/ m ³ | Workers | Local |
| | DNEL | Long term Inhalation | 14.8 mg/ m ³ | General population [Human via the environment] | Systemic |
| | DNEL | Short term Inhalation | 174 mg/m³ | General population [Consumers] | Systemic |
| | DNEL | Short term Inhalation | 174 mg/m³ | General population [Consumers] | Local |
| Hydrocarbons, C9, aromatics | DNEL | Long term Dermal | 25 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 150 mg/ m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 11 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Long term Inhalation | 32 mg/m³ | General population [Consumers] | Systemic |
| | DNEL | Long term Oral | 11 mg/kg bw/day | General population [Consumers] | Systemic |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|------------------------|------------|---------------|
| Xylene, mixed isomers | Fresh water | 0.327 mg/l | - |
| | Marine water | 0.327 mg/l | - |
| | Fresh water sediment | 12.46 mg/l | - |
| | Sewage Treatment Plant | 6.58 mg/l | - |
| | Soil | 2.31 mg/kg | - |
| | Marine water sediment | 12.46 mg/l | - |



8.2. Exposure controls/personal protection

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 vapours 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.
- : Use safety eyewear designed to protect against splash of liquids.

Eye/face protection

<u>Skin protection</u>

Hand protection

Gloves

- : Wear suitable gloves tested to EN374.
- : Gloves for term exposure/splash protection (less than 10 in):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 > 240 min.) When the hazardous ingredients in Section 3 contain any of the following: Aromatic solvents (Xylene, Toluene) or Aliphatic solvents or Mineral Oil use: Polyvinyl alcohol (PVA) gloves 0.2-0.3 mm Otherwise use: Butyl gloves >0.3 mm For long term exposure or spills (breakthrough time >480 min.): Use PE laminated gloves as under gloves

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 usewhen 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 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.

T - 01329 844500 F - 01329 844600 Page 10 W - www.astroflame.com E - sales@astroflame.com



Body protection

- : Personnel should wear antistatic clothing made of natural fibres or of hightemperature-resistant synthetic fibres.
- : 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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

9.1. Information on basic physical and chemical properties

Appearance

Physical state:Liquid.Colour:White.Odour:Paint

Odour threshold: Not Available (Not Tested).

pH : Not relevant/applicable due to nature of the product.Melting point/freezing point : Not relevant/applicable due to nature of the product.

Initial boiling point and 136°C

boiling range :

Flash point : Closed cup: 27°C [Pensky-Martens Closed Cup]

Evaporation rate : 0.8 (butyl acetate = 1)

Flammability (solid, gas) : Not relevant/applicable due to nature of the product.

Upper/lower flammability orLEL: 0.7% (Light Aromatic Hydrocarbons)

explosive limits : UEL: 7% (Xylene, mixed isomers)

Vapour pressure : 0.95 kPa [at 20°C] Vapour density : 3.66 [Air = 1]

Relative density : 1.34

Solubility(ies) : Not relevant/applicable due to nature of the product.

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

T - 01329 844500 F - 01329 844600 Page 11 W - www.astroflame.com E - sales@astroflame.com



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

Decomposition temperature

Viscosity

Kinematic (40°C): <0.205 cm2/s

Explosive properties: Under normal conditions of storage and use, hazardous reactions will

not occur.

Oxidising properties : Under normal conditions of storage and use, hazardous reactions will

not occur.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity : No specific test data related to reactivity available for this product or its

ingredients.

10.2. Chemical stability

Chemical stability : Stable under recommended storage and handling conditions (see

Section 7).

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will

not occur.

10.4. Conditions to avoid

Conditions to avoid : When exposed to high temperatures may produce hazardous

decomposition products.

10.5. Incompatible materials

Materials to avoid : Keep away from the following materials to prevent strong exothermic

reactions: oxidising agents, strong alkalis, strong acids.

10.6. Hazardous decomposition products

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 toxicological effects

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.

T - 01329 844500 F - 01329 844600 Page 12 W - www.astroflame.com E - sales@astroflame.com



Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|----------------------|---------|-------------|----------|
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Hydrocarbons, C9, aromatics | LD50 Oral | Rat | 8400 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |

Acute toxicity estimates

| Route | ATE value |
|----------------------|---------------|
| Oral | 1886.94 mg/kg |
| Dermal | 5955.04 mg/kg |
| Inhalation (gases) | 27068.34 ppm |
| Inhalation (vapours) | 336.9 mg/l |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------|--------------------------|---------|-------|-----------------------------|-------------|
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 UI | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| Hydrocarbons, C9, aromatics | Eyes - Mild irritant | Rabbit | - | 24 hours 100 microliters | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |

Conclusion/Summary : Not available.

Sensitisation

No data available

Conclusion/Summary : Not available.

Mutagenicity
No data availa

No data available

T - 01329 844500 F - 01329 844600 Page 13 W - www.astroflame.com E - sales@astroflame.com



Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-----------------------------|------------|-------------------|------------------------------|
| Xylene, mixed isomers | Category 3 | - | Respiratory tract irritation |
| Hydrocarbons, C9, aromatics | Category 3 | - | Respiratory tract irritation |
| | Category 3 | - | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|----------------|
| Xylene, mixed isomers | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | hearing organs |

Aspiration hazard

| Product/ingredient name | Result |
|-----------------------------|--------------------------------|
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C9, aromatics | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |

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.

T - 01329 844500 F - 01329 844600 Page 14 W - www.astroflame.com E - sales@astroflame.com



| Product/ingredient name | Result | Species | Exposure |
|-------------------------|-----------------------------------|---|----------|
| Ammonium Polyphosphate | Acute EC50 90890 μg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute IC50 10000 μg/l Fresh water | Algae - Pseudokirchneriella | 96 hours |
| | | subcapitata - Exponential growth phase | |
| | Acute LC50 70000 μg/l Fresh water | Fish - Oncorhynchus | 96 hours |
| | | tshawytscha - Juvenile (Fledgling, Hatchling, Weanling) | |
| Xylene, mixed isomers | Acute LC50 8500 μg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| | Acute LC50 13400 μg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| Ethylbenzene | Acute EC50 4600 μg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 μg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 4200 μg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

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 |
|-------------------------|-------------------|------------|------------------|
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |

12.3. Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-----------------------------|--------|-------------|-----------|
| Xylene, mixed isomers | - | 8.1 to 25.9 | low |
| Hydrocarbons, C9, aromatics | - | 10 to 2500 | high |
| Zinc Borate | - | 60960 | high |



12.4. Mobility in soil

Soil/water partition : Not available.

coefficient (Koc)

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. Other adverse effects

Other adverse effects: No known significant effects or critical hazards.

: Avoid dispersal of spilt material and runoff and contact with soil,

waterways, drains and sewers.

Section 13: Disposal considerations

13.1. Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised 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 nonrecyclable 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 waste paint and varnish containing organic solvents or other hazardous

catalogue (EWC) : 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 minimised 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 packaging containing residues of or contaminated by hazardous

catalogue (EWC) : substances 15 01 10*

T - 01329 844500 F - 01329 844600 Page 16 W - www.astroflame.com E - sales@astroflame.com



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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

ection 14: Transport information

| | ADR/RID | IMDG | IATA |
|---|------------------------|---------------------------------|--------|
| 14.1 UN number | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper | PAINT | PAINT | PAINT |
| 14.3 Transport Hazard Class(es)/ Label(s) | 3 | 3 | 3 |
| 14.4 Packing group | III | III | III |
| 14.5 Environmental hazards | No. | No. | No. |
| Additional information | <u>Tunnel code</u> D/E | Emergency schedules F-E, S-E | - |

14.6. Special precautions for user

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. Transport in bulk according to IMO instruments

Transport in bulk according to IMO

Not applicable.

instruments

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.

T - 01329 844500 F - 01329 844600 Page 17 W - www.astroflame.com E - sales@astroflame.com



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 authorisation

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

: Not applicable.

Other EU regulations

VOC content (2010/75/EU) : 26.2 w/w 351 g/l

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

15.2. Chemical Safety Assessment

Chemical safety assessment: No Chemical Safety Assessment has been carried out.

Section 16: Other information

Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging 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

T - 01329 844500 F - 01329 844600 Page 18 W - www.astroflame.com E - sales@astroflame.com



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) 2015/830

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 |
|-------------------------|-----------------------|
| Flam. Liq. 3, H226 | On basis of test data |
| Acute Tox. 4, H302 | Calculation method |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| STOT SE 3, H335 | Calculation method |
| STOT RE 2, H373 | Calculation method |
| Asp. Tox. 1, H304 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

Full text of abbreviated H statements:

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

 $\label{eq:H361} \mbox{H361 Suspected of damaging fertility or the unborn child.}$

H373 May cause 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.

EUH066 Repeated exposure may cause skin dryness or cracking.

T - 01329 844500 F - 01329 844600 Page 19 W - www.astroflame.com E - sales@astroflame.com



Full text of classifications [CLP/GHS]

Acute Tox. 4 ACUTE TOXICITY - Category 4

Aquatic Acute 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Asp. Tox. 1 ASPIRATION HAZARD - Category 1

Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 2 Flam. Liq. 3 FLAMMABLE LIQUIDS - Category 3 Repr. 2 REPRODUCTIVE TOXICITY - Category 2

Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2

STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of printing : 30, Jul, 2020.

Date of issue/ Date of revision : 30, Jul, 2020

Date of previous issue : 25, May, 2020

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

information.

Version : 17

Notice to reader

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 make themselves aware of and understand the data contained in this SDS and any hazards that may be associated with the product. This information is provided in good faith and believed to be accurate as of the effective date mentioned 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 may change later the composition, hazards and risks of the product. Products shall should 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 the use of the product are not under the manufacturer's control of the manufacturer; the customer/buyer/user is responsible to for determine determining 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 held responsible for SDSs obtained from any other source.

As part of our policy of ongoing improvements, we reserve the right to modify, alter or change product specifications without giving notice. Product illustrations are representations only. All information contained in this document is provided for guidance only, and as ASTROFLAME (FIRE SEALS) LTD has no control over the specific application or installation methods of the products, or of the prevailing site conditions, no warranties expressed or implied are intended to be given as to the actual performance of the products mentioned or referred to, and no liability whatsoever will be accepted for any loss, damage or injury arising from the use of the information given of products mentioned or referred to herein.

The above information to the best of our knowledge is true and accurate and based upon current test data and is supplied for your guidance only. Customers should satisfy themselves to the suitability of the product based on the products limitation of applications and that the product is fit for purpose for their intended use and no guarantee is given or implied since the conditions of actual use are beyond our control. ASTROFLAME (FIRE SEALS) LTD, disclaim any liability for loss, damage or other expense arising from the use of information, data or products mentioned or referred to and reserve the right to change any details or specifications without notice. If you are in any doubt as to the suitability of this product for your intended application please contact our technical team on 01329 844500 or email sales@astroflame.com and we will contact you.