



Product Number: 66

3-2-1 Fire Retardant Liquid

Description:

Envirograf® 3-2-1 is an aqueous, odourless, flame-retardant liquid. For use on many absorbent materials including canvas, cardboard, clothing, curtains, carpets, dust sheets, polyurethane furniture, polystyrene, tents, upholstery, wallpaper, and even some nylon materials. Can be used on living and artificial Christmas trees. **3-2-1** liquid is clear, and items treated with it can be dry cleaned.

This product comprises of the following materials and therefore is supported by Health & Safety Data Sheets:

- Appendix 10 (3-2-1)

*The information contained in this safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.

HEALTH & SAFETY INFORMATION SHEET
APPENDIX 10
321 STANDARD FIRE PROTECTION LIQUID

Issue 3 October 2021

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

1.1 Product identifier

Trade name : 3-2-1 Fire Retardant Liquid
Other names : Product 66

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

Use of the substance/Mixture : Fire retardant liquid for use on many absorbent materials.

1.3 Details of the supplier of the safety data sheet

Company : Intumescent Systems LTD
Telephone : 01304 842555
Telefax : 01304 842666
E-mail address : sales@envirograf.com

1.4 Emergency telephone number

Emergency telephone number : 01304 842555 (Monday to Friday 8:30 – 17:30)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

Additional information

Not applicable

2.2 Label elements

Label elements according to Regulation (EC) No 1272/2008

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008.

Additional labelling

No additional labelling

2.3 Other hazards

PBT and vPvB assessment

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

Other

: Warning, this substance may be harmful if swallowed and cause eye/skin irritation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

No dangerous ingredients according to Regulation (EC) No. 1907/2006

3.2 Mixtures

No dangerous ingredients according to Regulation (EC) No. 1907/2006.

4. FIRST AID MEASURES

4.1 Description of first aid measures

(a) General:

Take affected person(s) into the open air. Remove contaminated clothing.

(b) Inhalation:

Remove to fresh air. If symptoms persist, call a physician.

(c) Eye contact:

Rinse the affected eye with plenty of water, at the same time keep the unaffected eye well protected. Seek medical advice.

(d) Ingestion:

Do not induce vomiting. If conscious give plenty of water. Seek medical advice.

(e) Skin contact:

Immediately wash skin thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

No symptoms known currently.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	: Select extinguishing media appropriate to other materials involved in/or circumstances of fire.
Unsuitable extinguishing media	: None known

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	: In case of fire hazardous decomposition products may be produced such as: Ammonia Carbon monoxide Carbon dioxide (CO ₂) Phosphorus oxides (eg Phosphorus pentoxide)
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5.3 Advice for firefighters

Use breathing apparatus. Full protective suit

Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedure

Protective equipment	: Wear suitable protective equipment. See section 8.
Emergency procedures	: Avoid creating and breathing any fumes. Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions

Do not empty into drains.

6.3 Methods and material for containment and cleaning up

Contain spilled material immediately with sand or absorbent material and vacuum or shovel into closable containers for disposal

6.4 Reference to other sections

Information regarding Safe handling, see section 7, For personal protection see section 8, For disposal considerations see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	: Use personal protective equipment. Use with local exhaust ventilation.
Advice on protection against fire and explosion	: No special measures necessary.
Advice on general occupational hygiene	: Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including and incompatibilities

Storage	: Keep containers tightly closed in a cool, well ventilated place. Protect from frost.
Incompatible materials	: Avoid contact with strong oxidizing agents, strong reducing agents and strong acids.

7.3 Specific end use(s)

Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with workplace exposure limits (WELs, EH40/2005)

8.2 Exposure controls

Appropriate engineering controls

Use with local exhaust ventilation.

Personal protective equipment

Eye and face protection	: safety glasses, or face shield if necessary
Skin protection	Hand: Nitrile rubber, 0.5 mm Other: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection.
Thermal hazards	: Not applicable

Environmental exposure controls

Substance/mixture related measures to prevent exposure	: Observe recommended and local authority disposal measures. Ensure all spills are cleaned correctly.
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Taking into account Regulation (EU) 2016/425 of the European Parliament.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear
Odour	: Slight
Melting point/freezing point	: Not applicable, 0°C
Boiling point or initial boiling point and boiling range	: Not available
Flammability	: Not flammable
Lower and upper explosion limit	: Not determined
Flash point	: Not determined
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No decomposition observed at ambient temperature
pH	: 7-8.5
Kinematic viscosity	: Not determined
Solubility	: Miscible in water
Partition coefficient n-octanol/water (log value)	: Not available
Vapour pressure	: Not available
Density and/or relative density	: 1.0 – 1.25 g/m ³ (25°C)
Relative vapour density	: Not determined
Particle characteristics	: Not applicable

9.2 Other information

Component within mixture has a decomposition temperature of >270°C

10. STABILITY AND REACTIVITY

10.1 Reactivity

See section 10.3. "Possibility of hazardous reactions"

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Reactions with alkalis. Exothermic reaction

10.4 Conditions to avoid

Extreme temperatures.

10.5 Incompatible materials

Keep away from strong bases. Avoid contact with strong oxidizing agents, strong reducing agents and strong acids

10.6 Hazardous decomposition products

Potential decomposition at temperatures above 270°C releasing ammonia

11. TOXICOLOGICAL INFORMATION

Remarks: No data is available on the product itself.

Information given is based on data on the components and the toxicology of similar products.

Remarks: Contains no substances with workplace exposure limits (WELs, EH40/2005), refer to section 8.1 "control parameters"

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

No components of this product are allocated a hazard class according to Regulation (EC) No 1272/2008

11.2 Information on other hazards

Remarks: toxicology data related to single components not the final product itself.

Product component:

Acute oral toxicity	:	LD50 (rat (male)): >4900 mg/kg
Acute inhalation toxicity	:	No data available
Acute dermal toxicity	:	No data available

Product component:

Acute oral toxicity	:	LD50 (rat (male)): >2000 mg/kg
Acute inhalation toxicity	:	No data available
Acute dermal toxicity	:	No data available
Skin corrosion/irritation	:	Rabbit 4h, OECD test guideline 404 Result: No irritation GLP: Yes
Serious eye damage/eye irritation	:	Rabbit, OECD test guideline 45 Result: No eye irritation GLP: Yes
Respiratory or skin sensitisation	:	No data available
Germ cell mutagenicity	:	Not mutagenic in Ames Test

STOT - single exposure

Not available

STOT – repeated exposure

Not available

12. ECOLOGICAL INFORMATION

Remarks: No data is available on the product itself.

Information given is based on data on the components and the toxicology of similar products.

12.1 Toxicity

Product component:

Toxicity to fish	:	LC50 (Brachydanio rerio (zebrafish)): > 100 mg/l Exposure time: 95 h
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Water hazard class 1:

Slightly hazardous for water. (WGK)

12.2 Persistence and degradability

Not available

12.3 Bioaccumulative potential

Not available

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Endocrine disrupting properties

Contains no components determined to be endocrine disrupting.

12.7 Other adverse effects

None available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product disposal	: In accordance with regulations for special waste, must be taken, after pretreatment, to an authorised special waste incineration plant
Packaging disposal	: Packaging that cannot be cleaned should be disposed of as product waste
Waste code	: Seek advice from local waste authority
Waste designations according to LoW	: Not available
Waste treatment-relevant information	: Seek advice from local waste authority
Sewage disposal-relevant information	: Seek advice from local waste authority
Other disposal recommendations	: None recommended

14. TRANSPORT INFORMATION

Not classified as hazardous for transport.

14.1 UN number or ID number	: Not applicable
14.2 UN proper shipping name	: Not applicable
14.3 Transport hazard class(es)	: Not applicable
14.4 Packing group	: Not applicable
14.5 Environmental hazards	: Not applicable
14.6 Special precautions for user	: See section 6 to 8 of this SDS
14.7 Maritime transport in bulk according to IMO instruments	

Not applicable

15. REGULATORY INFORMATION

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants	:	Not applicable
Other regulations	:	Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).

15.2 Chemical safety assessment

No Chemical Safety Assessment (CSA) is yet available for the substance, or for the component substances, contained in this product.

16. OTHER INFORMATION

Indication of changes	: N/A
Abbreviations and acronyms EC GLP LC50 OECD PBT vPvB WELs WGK SDS STOT	: European Commission Good Laboratory Practice The amount of a substance suspended in the air required to kills 50% of a test animals during a predetermined observation period Organisation for Economic Co-operation and Development Persistent, Bioaccumulative and. Toxic chemicals very Persistent and very Bio-accumulative Workplace exposure limits German Water Endangerment Class Safety Data Sheet Specific target organ toxicity
Key literature references and sources for data	: Regulation (EC) No. 1272/2008. Regulation (EC) No. 1907/2006 Regulation (EC) No 1005/2009 Regulation (EC) No 850/2004 Workplace exposure limit EH40/2005 Regulation (EU) 2016/425 REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

The information contained in the Health and Safety Data Sheet is provided in accordance with the requirements of the most recent UK REACH Regulations. The product should not be used for purposes other than those shown without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. This information contained in the safety data sheet is based on present knowledge and current EU and UK legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.
