

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

SDS # ISSI-001-EU
 Product Name BinaryFIB Pressure Sensitive Paint®

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

Recommended Use Wind tunnel testing

1.3. Details of the Supplier of the Safety Data Sheet

Supplier

Innovative Scientific Solutions, Inc.
 7610 McEwen Road
 Dayton, OH 45459

For further information, please contact

Contact Point Innovative Scientific Solutions, Inc. Phone: (937) 630-3012
 Fax: (937) 630-3015
 Email Address painting@innssi.com

1.4. Emergency telephone number

Emergency Telephone (24 hr) (937) 630-3012 x100

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Regulation (EC) No 1272/2008

Chronic aquatic toxicity	Category 2 - (H411)
Flammable liquids	Category 2 - (H225)

2.2. Label Elements

Product Identifier



Signal Word

Danger

Hazard statements

H225 - Highly flammable liquid and vapour
 H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 P233 - Keep container tightly closed
 P240 - Ground/bond container and receiving equipment
 P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P273 - Avoid release to the environment
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
 P403 + P235 - Store in a well-ventilated place. Keep cool
 P391 - Collect spillage
 P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 MIXTURES**

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
α,α,α -Trifluorotoluene	Present	98-08-8	90-95	Aquatic Chronic 2 (H411) Flam. Liq. 2 (H225)	Not determined
Titanium dioxide	Present	13463-67-7	0.1-1	Carc. 2 (H351i)	Not determined

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 4: FIRST AID MEASURES**4.1. Description of First Aid Measures**

Eye Contact Rinse immediately with plenty of water and seek medical advice.

Skin Contact Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Inhalation Remove to fresh air.

Ingestion Clean mouth with water and drink afterwards plenty of water.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms None known.

4.3. Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media

Use CO₂, dry chemical, or foam for extinction.

Unsuitable Extinguishing Media

Not determined.

5.2. Special Hazards Arising from the Substance or Mixture

Highly flammable liquid and vapour.

5.3. Advice for Firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

Use personal protective equipment as required.

For Emergency Responders

Use personal protection recommended in Section 8.

6.2. Environmental Precautions

See Section 12 for additional Ecological Information.

6.3. Methods and Material for Containment and Cleaning Up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up

Place in appropriate containers for disposal.

6.4. Reference to Other Sections

See Section 13: DISPOSAL CONSIDERATIONS.

Section 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Advice on Safe Handling

Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions

Store in a well-ventilated place. Keep cool.

7.3. Specific End Use(s)

Specific Use(s)

Wind tunnel testing.

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control Parameters****Exposure Limits**

Chemical name	European Union	United Kingdom	France	Spain	Germany
α,α,α -Trifluorotoluene 98-08-8	-	-	-	-	TWA: 1 mg/m ³
Titanium dioxide 13463-67-7	-	STEL: 30 mg/m ³ STEL: 12 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 1.25 mg/m ³ TWA: 10 mg/m ³
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
α,α,α -Trifluorotoluene 98-08-8	-	TWA: 2.5 mg/m ³	-	-	TWA: 2.5 mg/m ³
Titanium dioxide 13463-67-7	-	TWA: 10 mg/m ³	-	-	TWA: 6 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
α,α,α -Trifluorotoluene 98-08-8	-	-	TWA: 2 mg/m ³	-	TWA: 2.5 mg/m ³ STEL: 7.5 mg/m ³
Titanium dioxide 13463-67-7	STEL 10 mg/m ³ TWA: 5 mg/m ³	TWA: 3 mg/m ³	STEL: 30 mg/m ³ TWA: 10 mg/m ³	TWA: 5 mg/m ³ STEL: 10 mg/m ³	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³

8.2. Exposure Controls**Engineering Controls**

Apply technical measures to comply with the occupational exposure limits.

Personal Protective Equipment**Eye/Face Protection**

Avoid contact with eyes.

Hand Protection

Gloves are not required for normal use.

Skin and Body Protection

Suitable protective clothing.

Respiratory Protection

Ensure adequate ventilation, especially in confined areas.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on Basic Physical and Chemical Properties**

Physical state	Liquid	Odour	Smells like TFT
Appearance	Clear liquid	Odour Threshold	Not determined
Colour	Colourless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-Not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	Not determined	
Lower flammability or explosive limits	Not determined	
Vapour Pressure	Not determined	
Vapour Density	Not determined	
Relative Density	Not determined	

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Water Solubility	Not determined	
Solubility(ies)	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidising Properties	Not determined	

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not reactive under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of Hazardous Reactions

Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to Avoid

Keep out of reach of children.

10.5. Incompatible Materials

None known based on information supplied.

10.6. Hazardous Decomposition Products

None under normal use conditions.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute toxicity

Product Information

Inhalation	Do not inhale.
Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Ingestion	Do not ingest.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	15,983.40 mg/kg
ATEmix (dermal)	2,133.20 mg/kg
ATEmix (inhalation-dust/mist)	75.45 mg/L

Unknown Acute Toxicity

99.8475 % of the mixture consists of ingredient(s) of unknown toxicity.

6 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

6 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

99.8475 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

99.8475 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).

6 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
α,α,α -Trifluorotoluene	= 15 g/kg (Rat)	> 2000 mg/kg (Rat)	= 70810 mg/m ³ (Rat) 4 h
Titanium dioxide	> 10000 mg/kg (Rat)		

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Not classified.

Sensitisation Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Titanium dioxide	Carc. 2

Reproductive toxicity Not classified.

STOT - single exposure Not classified.

STOT - repeated exposure Not classified.

Aspiration hazard Not classified.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Crustacea
α,α,α -Trifluorotoluene		212: 96 h Brachydanio rerio mg/L LC50 static	

12.2. Persistence and Degradability

Not determined.

12.3. Bioaccumulative Potential

Chemical name	Partition coefficient
α,α,α -Trifluorotoluene	3.01

12.4. Mobility in Soil

Mobility

Not determined.

12.5. Results of PBT and vPvB Assessment

Not determined.

12.6. Other Adverse Effects

Not determined.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Improper disposal or reuse of this container may be dangerous and illegal.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN number	UN1263
14.2 Proper Shipping Name	Paint
14.3 Transport hazard class(es)	3
14.4 Packing Group	II
14.5 Marine Pollutant	This material may meet the definition of a marine pollutant

RID

14.1 UN/ID No	UN1263
14.2 Proper Shipping Name	Paint
14.3 Transport hazard class(es)	3
14.4 Packing Group	II

ADR

14.1 UN number	UN1263
14.2 Proper Shipping Name	Paint
14.3 Transport hazard class(es)	3
14.4 Packing Group	II

IATA

14.1 UN number	UN1263
14.2 Proper Shipping Name	Paint
14.3 Transport hazard class(es)	3
14.4 Packing Group	II

Section 15: REGULATORY INFORMATION

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ELINCS	PICCS	ENCS	IECSC	AICS	KECL
α,α,α-Trifluorotoluene 98-08-8 (90-95)	X	X	X	X	X	X	-	-
Titanium dioxide 13463-67-7 (0.1-1)	X	X	X	X	X	X	X	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16: OTHER INFORMATION**Full text of H-Statements referred to under section 3**

H225 - Highly flammable liquid and vapour
H351 - Suspected of causing cancer
H411 - Toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Classification Procedure**

Calculation method

Issue Date: 06-Jun-2022

Revision Date: 06-Jun-2022

Revision Note: New format.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2015/830

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet