

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

1.1. Product identifier Product name: Soluble Dog Fibrin Catalog number: DFBGN-S

1.2. Relevant identified uses of the substance or mixture and uses advised against Identified uses: Laboratory chemicals, for research use only Uses advised against: Not for clinical or diagnostic use

1.3. Details of the supplier of the safety data sheet

Molecular Innovations, Inc. 46430 Peary Court, Novi, MI 48377, USA Tel: 248-896-0142 Fax: 248-896-0148

1.4. Emergency telephone number

Emergency number: 248-896-0142

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Flammable liquids (Category 3), H226 Skin corrosion (Category 1A), H314 Serious eye damage (Category 1), H318 For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. GHS label elements, including precautionary statements

Signal word: Danger

Hazard statement(s)

H226: Flammable liquid and vapor. H314: Causes severe skin burns and eye damage.

Precautionary statements (Prevention)

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.
- P264: Wash skin thoroughly after handling.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Precautionary statements (Response)

P301 + P330 + P331: If swallowed rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353: If on skin or hair take off immediately all contaminated clothing. Rinse skin with water or shower.

P304 + P340 + P310: If inhaled remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor.

P305 + P351 + P338 + P310: If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

P363: Wash contaminated clothing before reuse.

P370 + P378: In case of fire use dry sand, dry chemical or alcohol-resistant foam to extinguish.



Precautionary statements (Storage and disposal)

P403 + P235: Store in a well-ventilated place. Keep cool.P405: Store locked up.P501: Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Lachrymator.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	CAS No.	EC No.	Concentration	Classification
Fibrinogen	9001-32-5	232-598-6	<1%	Not classified
Acetic acid	64-19-7	200-580-7	<1%	Flam. Liq. 3; Skin Corr. 1A; Eye Dam. 1; H226, H314, H318;
				Concentration limits: 10-< 25%: Eye Irrit. 2; H319; 10-<25%:
				Skin Irrit. 2; H315; 25-<90%: Skin Corr. 1B; H314; >= 90%: Skin
				Corr. 1A; H314; >= 90%: Flam. Liq. 3; H226

No ingredients are hazardous according to OSHA criteria. No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

4.1. Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

In all cases of doubt, or when symptoms persist, seek medical attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media Suitable extinguishing media: Use dry powder or dry sand. Unsuitable extinguishing media: Do NOT use water jet.

5.2. Special hazards arising from the substance or mixture

Carbon oxides. Combustible.

5.3. Advice for firefighters

Use normal individual fire protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.



5.4. Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

6.4. Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid inhalation of vapor or mist. Keep away from sources of ignition -No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Moisture sensitive. Storage class (TRGS 510): 3: Flammable liquids.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Name	CAS No.	Value	Control Parameters	Basis
Acetic Acid	64-19-7	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	10 ppm	USA. NIOSH Recommended Exposure Limits
			25 mg/m3	
		ST	15 ppm	USA. NIOSH Recommended Exposure Limits
			37 mg/m3	
		TWA	10 ppm	USA. Occupational Exposure Limits (OSHA) -Table Z-1 Limits for
			25 mg/m3	Air Contaminants
		PEL	10 ppm	California permissible exposure limits for chemical
			25 mg/m3	contaminants (Title 8, Article 107)
		STEL	15 ppm	California permissible exposure limits for chemical
			37 mg/m3	contaminants (Title 8, Article 107)
		С	40 ppm	California permissible exposure limits for chemical
				contaminants (Title 8, Article 107)



8.2. Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure: Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Physical state: Frozen liquid Color: Clear Odor: Stinging Odor threshold: No data available pH: No data available Melting point: No data available Freezing point: No data available Boiling point: No data available Flash point: No data available Evaporation rate: No data available Decomposition temperature: No data available Flammability (solid, gas): No data available Vapor pressure: No data available Relative vapor density: No data available Relative density: No data available Solubility: Water soluble Viscosity: No data available Explosive properties: No data available Oxidizing properties: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.



10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid Heat, flames and sparks.

10.5. Incompatible materials

Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, Permanganates, for example potassium permanganate, Amines, Alcohols, Nitric acid.

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: Carbon oxides Other decomposition products: No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1. Information on toxicological effects Acute toxicity LD50 Oral – Rat – 3,310 mg/kg LC50 Inhalation – Mouse – 4 h – 2,819 mg/l

Skin corrosion/irritation

Skin – Rabbit – 4 h – Causes burns

Serious eye damage/eye irritation Skin – Rabbit – 4 h – Causes burns

Respiratory or skin sensitization No data available.

Germ cell mutagenicity

Ames test – Salmonella typhimurium – Result: negative Mutagenicity (mammal cell test): chromosome aberration – Chinese hamster ovary cells – Result: negative Mutagenicity (micronucleus test) – Rat – male and female – Bone marrow – Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available.

Specific target organ toxicity-single exposure No data available.



Specific target organ toxicity repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

To the best of our knowledge the product does not present any particular risk under normal conditions of use. The chemical, physical, and toxicological properties have not been thoroughly investigated. Safety Data Sheet in accordance with Regulation (EC) No. 1907/2006, as amended.

SECTION 12: Ecological information

12.1. Toxicity Presents no specific risk for the environment in small amounts.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

Not dangerous goods in accordance with DOT (US) / ADR / RID / ADNR / IMDG / ICAO / IATA 14.1 UN number 2789

14.2 UN proper shipping name Acetic acid

14.3 Transport hazard class(es)

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MATERIAL SAFETY DATA SHEET in accordance with Regulation (EC) No. 1907/2006 as amended Soluble Dog Fibrin

14.4 Packaging group

14.5 Reportable quantity 5000 lbs

14.6 Special precautions for user Poison inhalation hazard: No

14.7 Transport in bulk according to Annex II of Marpol73/78 and the IBC Code No data available.

SECTION 15: Regulatory information

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

United States Restrictions

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard, Chronic Health Hazard.

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components: Acetic acid, CAS No. 64-19-7.

New Jersey Right To Know Components: No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

European Union Restrictions

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended The Waste Act as amended. Government Decree No. 361/2007 Coll., to regulate the conditions of occupational health and safety, as amended. Regulation of the European Parliament and the Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council (EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 453/2010. Directives 67/548/EEC as amended and 1999/45/EC as amended.

15.2. Chemical safety assessment

Chemical safety assessment has not been carried out.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Eye Dam: Serious eye damage. Flam Liq: Flammable liquid. H226: Flammable liquid and vapor. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage. H319: Causes serious eye irritation. Skin Corr: Skin corrosion. Skin Irrit: Skin irritation.

Hazardous Material Information System (HMIS) Rating

Health Hazard: 3 Chronic Health Hazard: Flammability: 2 Physical Hazard: 0



National Fire Protection Association (NFPA) Rating

Health Hazard: 3 Fire Hazard: 2 Reactivity Hazard: 0

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