EMERGENCY CONTACT (24/7): +1 (888) 969-0010

Mixture status: FXN Sticker is a finished-article product supplied in ready-to-install form. This SDS is provided to support workplace hazard communication in accordance with OSHA 29 CFR 1910.1200. The product is not classified as hazardous under OSHA HazCom 2012 or Canada WHMIS 2015 in its supplied form.

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product name	FXN Sticker
Product type	Automatic, heat-activated, single-use fire suppression sticker. Adhesive-backed sticker for installation inside enclosed electrical or electronic enclosures.
Active agent	FK-5-1-12 (dodecafluoro-2-methylpentan-3-one), encapsulated
Recommended use	Supplemental, in-enclosure fire suppression component for installation on the interior ceiling of enclosed electrical and electronic enclosures.
Restrictions on use	Not intended for open-air use, structural fires, kitchen or grease fires, occupied-space life safety protection, or as a replacement for code-required fire detection and suppression systems.
Supplier / Owner Brand	FireXNull Inc.
Address	Irvine, CA 92618, USA
Phone	+1 (888) 969-0010
Email	support@firexnull.com
Website	www.firexnull.com
Emergency contact	+1 (888) 969-0010 (24/7)
Country of origin	Manufactured in South Korea unless otherwise stated on product label or shipping documents.
Companion TDS	TDS-FXN-STK-001-US | V3.7 | August 2026
SDS reference	SDS-FXN-STK-001-US | V4.0 | August 2026

2. HAZARDS IDENTIFICATION

2.1 Classification (OSHA HazCom 2012 / WHMIS 2015)

FXN Sticker is supplied as a finished article in adhesive sticker form. Based on available information, the product is NOT classified as a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200) or as a hazardous product under Canada's Hazardous Products Regulations (WHMIS 2015) in its supplied form. No physical, health, or environmental hazard classes have been assigned to the product as supplied.

2.2 Label Elements

Hazard pictograms	None required (not classified as hazardous in supplied form).
Signal word	None required.
Hazard statements	None required for the product in supplied form.
Precautionary statements	Avoid mechanical damage to the product (puncturing, cutting, crushing) prior to installation. Avoid exposure to temperatures above the activation threshold prior to installation. After any thermal activation event, ventilate the area and avoid inhalation of decomposition products.
Supplemental information	Finished-article product for installation inside enclosed electrical environments. Install only in accordance with FireXNull instructions and applicable electrical-safety requirements.

2.3 Hazards Not Otherwise Classified (HNOC)

- **Activation behavior:** when the product temperature exceeds approximately 248 °F ± 9 °F (120 °C ± 5 °C), the encapsulated FK-5-1-12 is released. This is the intended fire-suppression mechanism. Avoid exposure to heat sources at or above this temperature prior to installation.
- After a product activation event, decomposition products may be present. Ventilate the area before re-entry.
- No additional HNOC hazards are known for the product as supplied based on available information.

GHS Note: This SDS is prepared consistent with GHS-based SDS communication principles as implemented under OSHA 29 CFR 1910.1200 and Canada HPR/WHMIS 2015.

3. COMPOSITION / INFORMATION ON INGREDIENTS

FXN Sticker is a finished article supplied in ready-to-install form. Substance information is provided below for the active and structural components.

Component	CAS No.	Content (wt%)	GHS Hazard Classification
FK-5-1-12 (dodecafluoro-2-methylpentan-3-one), encapsulated	756-13-8	≈ 60 %	Not classified as hazardous (per supplier data)
Microcapsule shell (thermoset polymer)	Polymer; exempt	Balance	Not classified in cured polymer form
Carrier film, adhesive, and other components	Mixture	Balance	Not classified as hazardous in supplied form

Component contents are typical and may vary within normal manufacturing tolerances. The specific composition and structure of the microcapsule shell system is confidential information of FireXNull Inc. and is withheld as a trade secret in accordance with OSHA 29 CFR 1910.1200(i) and the equivalent provisions of WHMIS 2015. FireXNull has not withheld known hazard information required for safe handling of the product as supplied.

4. FIRST-AID MEASURES

4.1 Description of First-Aid Measures

Inhalation	Move person to fresh air. If breathing is difficult or irritation persists, seek medical attention. After a product activation event, do not re-enter the area until adequately ventilated.
Skin contact	Wash affected area with soap and water. Remove contaminated clothing. If irritation develops, seek medical attention.
Eye contact	Rinse cautiously with clean water for at least 15 minutes. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.
Ingestion	Rinse mouth with water. Do not induce vomiting. Seek medical advice if symptoms occur.
Note to physician	Treat symptomatically. The product contains encapsulated FK-5-1-12 (a fluorinated ketone). No specific antidote is known.

4.2 Most Important Symptoms and Effects

In supplied form, no significant symptoms are expected from normal handling. After a product activation or thermal decomposition event, decomposition products may cause respiratory irritation, eye irritation, and headache.

4.3 Indication of Immediate Medical Attention

Seek medical attention if respiratory symptoms persist after fresh-air exposure, or following exposure to thermal decomposition products in a confined space.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	Water spray, dry chemical, foam, or carbon dioxide (CO2) for surrounding fires.
Extinguishing media considerations	Avoid high-velocity water jets directed at the product, which may scatter the sticker substrate. Use water spray or mist where applicable.
Specific hazards arising from the product	During thermal exposure above the activation threshold, the product releases FK-5-1-12 vapor (the intended fire-suppression mechanism). At very high temperatures the encapsulated agent and thermoset polymer shell components may also generate small quantities of hydrogen fluoride (HF), carbon monoxide (CO), and carbon dioxide (CO2).
Advice for firefighters	Wear self-contained breathing apparatus (SCBA) and full protective gear. Avoid inhalation of combustion and decomposition products. Ventilate the affected area before re-entry.
Additional information	FK-5-1-12 is a non-flammable clean agent. Activated release of the encapsulated agent is the intended fire-suppression mechanism, not a hazardous reaction.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

- **Intact product:** no special measures required.
- **Damaged or dislodged product:** avoid mechanical damage to the encapsulated material. Wear gloves and safety glasses.
- **Activated or thermally decomposed product:** ventilate the area. Avoid inhalation of vapor and decomposition products. Wear respiratory protection if entering a confined space.

6.2 Environmental Precautions

Prevent damaged or activated product from entering drains, waterways, or sewers. The active agent FK-5-1-12 has zero ozone depletion potential and a short atmospheric lifetime, but uncontrolled release should be avoided.

6.3 Methods and Materials for Containment and Cleanup

- Collect any displaced product and place in a sealed labeled container.
- Clean affected surfaces with mild detergent and water if needed.
- Do not dispose of by uncontrolled burning or unapproved incineration.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

- Use only inside enclosed electrical or electronic environments as described in the TDS.
- Do not puncture, excessively bend, cut (outside FireXNull-approved procedures), or expose to open flame or temperatures at or above the activation threshold prior to installation.
- Turn off power to the circuit at the breaker and verify that the circuit and equipment are de-energized before installation. In workplace settings, follow the employer's applicable electrical lockout/tagout procedures in accordance with OSHA 29 CFR 1910.333(b).
- Do not reuse after any thermal activation event.

7.2 Conditions for Safe Storage

Storage temperature (sealed)	-40 to +149 °F (-40 to +65 °C)
Humidity	≤ 80 % RH, non-condensing. Protect from moisture.
Light / UV	Protect from direct sunlight and UV exposure.
Packaging	Store in original sealed packaging until installation.
Heat sources	Keep away from all heat sources at or above the activation threshold (248 °F ± 9 °F / 120 °C ± 5 °C) during storage.
Unopened storage period	2 years from date of manufacture in original sealed packaging when stored as specified. Install by the date printed on the package.
Recommended replacement (installed)	5 years after installation, under specified installation and normal operating conditions. Replace sooner if the product is activated, damaged, removed, loose, obstructed, or visibly abnormal. These intervals are maintenance guidance only and do not constitute a warranty or guarantee of fire-suppression performance.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

No specific Permissible Exposure Limit (PEL) or Threshold Limit Value (TLV) has been established for this finished article or its components in the product form as supplied. Normal installation of this product does not generate airborne dust or vapors under standard conditions. After any activation event, follow Section 4 and ventilate the area.

8.2 Engineering Controls

Ensure adequate ventilation in the enclosure area following any activation event. General room ventilation is adequate for normal installation activities.

8.3 Personal Protective Equipment (PPE)

Hands	General-purpose work gloves during installation.
Eyes	Safety glasses with side shields during installation.
Body	Standard work clothing.
Respiratory	Not required under normal installation conditions. Use appropriate respiratory protection if entering an area following an activation event.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value / Description
Appearance	Flat adhesive-backed sticker; white carrier visible.
Odor	None to slight.
Physical state	Flexible solid sticker (finished article).
Dimensions	Nominal thickness: 0.04-0.08 in (1-2 mm). Sizes per model (S1 to SA4); see TDS. FXN-S1 retail pack SKUs: FXN-S1-4 (4 units), FXN-S1-12 (12 units), and FXN-S1-100 (100 units); all other Sticker models are supplied as single units.

Flash point	Not applicable. FK-5-1-12 has no flash point.
Activation temperature (as supplied)	248 °F ± 9 °F (120 °C ± 5 °C), TGA-verified for the active microcapsules.
Boiling point (FK-5-1-12 core agent)	Approximately 49 °C (120 °F); rapid vaporization of released agent upon shell rupture.
Solubility in water	Insoluble.
Conductivity	Non-conductive (dielectric agent).
Vapor pressure	Not applicable to the product as supplied.
Auto-ignition temperature	Not applicable.
Explosive properties	Not classified as explosive in supplied form.
Oxidizing properties	Non-oxidizing in supplied article form.

10. STABILITY AND REACTIVITY

Reactivity	Not reactive under recommended storage and handling conditions.
Chemical stability	Stable when stored within the recommended temperature and humidity ranges, away from UV, sunlight, open flame, and heat sources approaching the activation threshold.
Possibility of hazardous reactions	None expected under normal handling. Above the activation threshold of approximately 248 °F ± 9 °F (120 °C ± 5 °C), encapsulated FK-5-1-12 is released (intended mechanism).
Conditions to avoid	Heat at or above the activation threshold prior to installation. Open flame, sparks, and direct contact with high-temperature surfaces. Mechanical damage (puncturing, crushing, kinking). Direct UV and prolonged sunlight. Humidity above 80 % RH.
Incompatible materials	Strong acids and strong alkalis (may degrade the polymer shell). Specific compatibility information is available under Technical Evaluation Agreement.
Hazardous decomposition products	Above the activation range: FK-5-1-12 vapor. At very high temperatures or under combustion: carbon monoxide (CO), carbon dioxide (CO2), traces of hydrogen fluoride (HF), and minor traces from polymer shell decomposition.
Hazardous polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological data below applies to the active component FK-5-1-12 based on published supplier and literature data. No specific toxicological studies have been performed on the finished article. Exposure to the product in supplied form is not expected under normal installation activities.

11.1 Information on Likely Routes of Exposure

- Inhalation of decomposition products from an activated event (primary post-activation scenario).
- Skin or eye contact with a damaged or activated product.
- Ingestion is not a credible scenario in normal use.

11.2 Acute Toxicity (Component-Level, Published Data)

FK-5-1-12 (CAS 756-13-8)	Oral LD50 (rat) > 5,000 mg/kg. Inhalation LC50 (rat, 4 h) > 100,000 ppm. NOAEL for cardiac sensitization = 10 % v/v in air. Not a skin sensitizer. Low acute toxicity at expected exposure concentrations based on supplier data.
Thermoset shell	Based on available information, low acute toxicity is expected in cured solid form.
FXN Sticker (finished article)	Not classified as acutely toxic in supplied form.

11.3 Other Health Effects

- Skin corrosion / irritation: not classified.
- Serious eye damage / irritation: not classified.
- Respiratory or skin sensitization: not classified.
- Germ cell mutagenicity: not classified.
- Carcinogenicity: FK-5-1-12 is not listed as a carcinogen by NTP, IARC, OSHA, or ACGIH.
- Reproductive toxicity: not classified.
- STOT (single or repeated exposure): not classified for the product in supplied form.

12. ECOLOGICAL INFORMATION

Ecological data below applies to the active component FK-5-1-12 based on published data. No specific ecological studies have been performed on the finished article.

Ozone Depletion Potential (ODP)	0
Global Warming Potential (GWP)	< 1, based on published supplier data.
Atmospheric lifetime	Approximately 3-5 days, based on published supplier data.
Aquatic toxicity (FK-5-1-12)	Low; FK-5-1-12 is volatile and partitions to the atmosphere.
Persistence and degradability	FK-5-1-12 degrades rapidly in the troposphere.
Bioaccumulation potential	Not bioaccumulative; FK-5-1-12 has low log Kow and short environmental half-life.
Mobility in soil	Not determined for the finished article.
Environmental hazard classification	Not classified.
Other adverse effects	FK-5-1-12 has an ODP of 0 and GWP < 1. It is not a Class I or Class II ozone-depleting substance under the U.S. Clean Air Act.

13. DISPOSAL CONSIDERATIONS

- Spent or expired product: based on current knowledge, the product is not a listed hazardous waste under RCRA (40 CFR 261) and is not expected to exhibit a characteristic of hazardous waste. Dispose of as non-hazardous industrial waste in accordance with applicable federal, state or provincial, and local regulations.
- The waste generator is responsible for determining the correct waste classification and disposal pathway at the point of disposal.
- Do not dispose of by uncontrolled burning or unapproved incineration.
- Do not flush to drains, waterways, or sewers.
- Activated product: ventilate the surrounding area before handling. Place spent material in a sealed, labeled container and dispose of per applicable regulations.
- Dispose of packaging in accordance with applicable federal, state or provincial, and local regulations.

14. TRANSPORT INFORMATION

FXN Sticker is non-pressurized and contains the active agent in encapsulated form. In its supplied form it is NOT regulated as Dangerous Goods under the following frameworks:

US DOT (49 CFR)	Not regulated as a Hazardous Material.
Transport Canada TDG	Not regulated as Dangerous Goods.
IATA / ICAO (air)	Not regulated as Dangerous Goods.
IMDG (sea)	Not regulated as Dangerous Goods.
UN number	None assigned.
Marine pollutant	No.

15. REGULATORY INFORMATION

15.1 United States Federal Regulations

- **TSCA:** To the best of FireXNull's knowledge, the components of FXN Sticker are listed on the TSCA Inventory or are exempt from listing. FXN Sticker is not subject to any TSCA Section 5 SNUR or Section 6 restriction for its intended use.
- **EPCRA / SARA Title III Sections 311/312:** the product is not classified as hazardous under OSHA HazCom 2012 and is not assigned an OSHA hazard category for Tier I / Tier II reporting purposes.
- **EPCRA / SARA Title III Section 313:** the product does not contain components subject to TRI reporting above de minimis concentrations.
- **U.S. EPA SNAP:** the active agent FK-5-1-12 is listed as an acceptable clean agent for fire suppression end-uses. This reference applies to the agent.
- **Clean Air Act:** FK-5-1-12 has an ODP of 0 and GWP < 1. It is not a Class I or Class II ozone-depleting substance.

15.2 United States State Regulations

- **California Proposition 65:** FK-5-1-12 (CAS 756-13-8) is not currently listed under California Proposition 65. Proposition 65 applicability should be evaluated based on the complete product composition and applicable exposure conditions.

- **PFAS:** FK-5-1-12 is a fluorinated ketone with a short atmospheric lifetime of approximately 3-5 days, GWP < 1, ODP = 0. PFAS definitions vary by jurisdiction. FireXNull makes no representation regarding compliance with any specific PFAS regulation. Distributors and end users are responsible for monitoring applicable PFAS regulations in their jurisdiction.

15.3 Canada Regulations

- **WHMIS 2015:** the product is not classified as a hazardous product under the Hazardous Products Regulations (SOR/2015-17).
- **DSL / NDSL:** to the best of FireXNull's knowledge, the components are listed on the Canadian DSL or NDSL, or are otherwise compliant for import and use under CEPA 1999.

16. OTHER INFORMATION

16.1 Companion Documents

- Technical Data Sheet: TDS-FXN-STK-001-US | V3.7 | August 2026.

16.2 Abbreviations

ACGIH - American Conference of Governmental Industrial Hygienists. CAS - Chemical Abstracts Service. CEPA - Canadian Environmental Protection Act. DSL - Domestic Substances List (Canada). EPCRA - Emergency Planning and Community Right-to-Know Act. GHS - Globally Harmonized System. GWP - Global Warming Potential. HNOC - Hazards Not Otherwise Classified. IARC - International Agency for Research on Cancer. IATA - International Air Transport Association. IMDG - International Maritime Dangerous Goods. NDSL - Non-Domestic Substances List (Canada). NOAEL - No Observed Adverse Effect Level. NTP - National Toxicology Program. ODP - Ozone Depletion Potential. OSHA - Occupational Safety and Health Administration. PFAS - Per- and Polyfluoroalkyl Substances. RCRA - Resource Conservation and Recovery Act. SARA - Superfund Amendments and Reauthorization Act. SCBA - Self-Contained Breathing Apparatus. SDS - Safety Data Sheet. SNAP - Significant New Alternatives Policy (US EPA). SNUR - Significant New Use Rule. TDG - Transportation of Dangerous Goods (Canada). TDS - Technical Data Sheet. TGA - Thermogravimetric Analysis. TRI - Toxics Release Inventory. TSCA - Toxic Substances Control Act. WHMIS - Workplace Hazardous Materials Information System (Canada).

16.3 Disclaimer

The information in this Safety Data Sheet is believed to be accurate as of the date of issue and is provided in good faith without warranty of any kind, express or implied. The user is responsible for ensuring that the information is appropriate and complete for their specific use and for compliance with all applicable laws and regulations. FireXNull Inc. shall not be liable for any damages arising from the use, misuse, or reliance on this document.

This SDS was prepared in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and Canada's Hazardous Products Regulations / WHMIS 2015 requirements in effect as of the issue date, and is consistent with applicable GHS-based SDS communication principles.

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