



Safety Data Sheet

DryWired® 101X 6 Series

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: DryWired® 101X 6 Series
Recommended Use: Protective barrier or liquid repellent coating. Approved for use in a class I medical devices and meets ISO 10933 biocompatibility requirements, showing no cytotoxicity to L-929 cells.
Address: 5569 W. Washington Blvd.
Los Angeles, CA 90016
Phone: 1-800-581-4528
Revised On: 10/22/19
Emergency Phone: US: 1-800-535-5053, International: 1-352-323-3500

SECTION 2: HAZARDS IDENTIFICATION

Hazard classification: Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.
GHS Label elements: Not classified as a hazardous substance or mixture.
Hazards not otherwise classified: None.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures

INGREDIENT	WT %	CAS NO.
Methyl Nonafluoroisobutyl Ether	35-50	163702-08-7
Methyl Nonafluorobutyl Ether	35-50	163702-07-6
Fluoroacrylate	0.1-30	Proprietary

This formulation does not contain PFOA or PFOS and is not derived from compounds comprising these materials. The components of this product are in compliance with the chemical notification requirements of TSCA. All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Volatile components of Fluoro-Compounds are VOC exempt per Federal Register August 25, 1997 [Volume 62, Number 164].

SECTION 4: FIRST AID MEASURES

Description of first aid measures:

Inhalation: Remove person to fresh air. Thermal decomposition occurs at prolonged time at temperatures above 300°C: Effects of breathing thermal decomposition products may include coughing, sneezing, shortness of breath, and chest tightness. If thermal decomposition products have been inhaled, get immediate medical attention.

Skin Contact: Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact: Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed: Rinse mouth. Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. Get immediate medical attention.

Most important symptoms and effects, both acute and delayed: See Section 11.1. Information on toxicological effects

Indication of any immediate medical attention and special treatment required: Symptoms persist, or unconsciousness. Never give anything by mouth to an unconscious person.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Non-combustible. Water spray, Dry chemical, Carbon dioxide. Use a fire-fighting agent suitable for surrounding fire.

Special hazards arising from the substance or mixture: Exposure to extreme heat can give rise to thermal decomposition. Carbon Monoxide, Carbon Dioxide, Hydrogen Fluoride (HF), Fluorinated hydrocarbons, Carbonyl Fluoride, Carbon oxides, Hydrogen Chloride.

Advice for fire-fighters: When fire-fighting conditions are severe and total thermal decomposition of the product is possible,



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wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head. Exposure to decomposition products may be a hazard to health. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Evacuate personnel to safe areas. Cool containers/tanks with water spray. Residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Further information: No further relevant information available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

Emergency Procedures: Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry to sewers or bodies of water.

Methods and material for containment and cleaning up: Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

Reference to other sections: For personal protection see section 8. For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Do not breathe vapours, spray mist, or thermal decomposition products. Avoid skin contact with hot material. For industrial or professional use only. Store work clothes separately from other clothing, food and tobacco products. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of hazardous decomposition products.

Conditions for Safe Storage, Including Incompatibilities: Keep container tightly closed. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidizing agents. Avoid freezing. Storage temperature < 60°C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: Occupational exposure limits

Ingredient	CAS No.	Agency	Limit Type
Methyl nonafluorobutyl ether	163702-07-6	American Indust. Hygiene	TWA: 750 ppm
Methyl nonafluoroisobutyl ether	163702-08-7	American Indust. Hygiene	TWA: 750 ppm

Appropriate Engineering Controls: Provide appropriate local exhaust when product is heated. For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

Personal Protective Equipment (PPE):

Eye/face protection: Face shield and safety glasses 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



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with applicable laws and good laboratory practices. Wash and dry hands after removal of gloves. It is recommended to check with the manufacturer of the gloves to ensure the gloves are fit for use with this material.

Respiratory protection: None required.

Body Protection: None required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Colorless Liquid	General Physical Form:	Liquid
Odor, Color, Grade:	Ether-like, colorless	Boiling Point:	61°C (100.4°F) at 1,13hPa
Density:	1.5-1.6 g/ml at 25°C (77°F)	Vapor Density:	8.6
Vapor Pressure:	269 hPa at 25°C (77°F) (202 mmHg@25°C)	Autoignition Temperature:	405 °C [ASTM E659-94]
pH:	<i>Neutral.</i>	Melting Point:	No Data.
Solubility In Water:	Slightly soluble 25°C (77°F) <12ppm	Evaporation Rate:	49 (BUOAC=1)
Flash Point:	<i>None.</i>	Viscosity:	<i>No Data.</i>
Specific Gravity:	1.5-1.6	Other Information:	None.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: This material may be reactive with certain agents under certain conditions - see remaining headings in this section.

Chemical stability: Stable.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: None known.

Incompatible materials: Strong acids, Strong bases, Strong oxidizing agents

Hazardous decomposition products: At Elevated Temperatures - extreme conditions of heat: Carbon Monoxide, Carbon Dioxide, Hydrogen Fluoride (HF), Perfluoroisobutylene (PFIB), Toxic Vapor, Gas, Particulate. Refer to Section 5 for hazardous decomposition products during combustion. If the product is exposed to extreme condition of heat from misuse or equipment failure, toxic decomposition products that include hydrogen fluoride and perfluoroisobutylene can occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation: Vapors from heated material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact: Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact: Vapors from heated material may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion: No health effects are expected.

Acute Toxicity

Name	Route	Species	Value
Methyl nonafluoroisobutyl ether	Inhalation vapor 4 hrs	Rat	LC50> 1,000mg/l
Methyl nonafluoroisobutyl ether	Ingestion	Rat	LD50> 5,000mg/l
Methyl nonafluorobutyl ether	Inhalation vapor 4 hrs	Rat	LC50> 1,000mg/l
Methyl nonafluorobutyl ether	Ingestion	Rat	LD50> 5,000mg/l

Skin Corrosion/Irritation, Serious Eye Damage/Irritation

Name	Species	Value
Methyl nonafluoroisobutyl ether	Rabbit	No significant Irritation
Methyl nonafluorobutyl ether	Rabbit	No significant Irritation

Skin Sensitization

Name	Route	Value
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	In Vitro	Not mutagenic

Carcinogenicity, Respiratory Sensitization

Germ Cell Mutagenicity

Name	Value	Name	Species	Value
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Data not available	Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Guinea Pig	Not sensitizing

Reproductive Toxicity



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Name	Route	Species	Value	Test Results
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Ingestion	Rat	Not toxic to female or male reproduction	NOAEL 1000mg/kg/d
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Inhalation	Rat	Not toxic to female or male reproduction	NOAEL 129mg/l

Target Organs: Specific Target Organ - Single Exposure

Name	Route	Target Organ	Value	Species	Test/Exposure
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Inhalation	Nervous system	Some positive data but not sufficient for classification	Dog	LOAEL 913mg/l -10 minutes
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Inhalation	Cardiac sensation	All data are negative	Dog	LOAEL 913mg/l -10 minutes

Target Organs: Specific Target Organ – Multiple Exposures

Name	Route	Target Organ(s)	Description	Species	Test/Exposure	Duration
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Inhalation	bone, teeth, nails, and/or hair	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 129 mg/l	11 weeks
Methyl nonafluoroisobutyl Ether, Methyl nonafluorobutyl ether	Inhalation	heart, skin, endocrine system, hematopoietic system, immune system, muscles, nervous system, eyes, kidneys, and/or bladder, respiratory system	All data are negative	Rat	NOAEL 155 mg/l	13 weeks
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Ingestion	endocrine system, liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	28 days
Methyl nonafluoroisobutyl ether, Methyl nonafluorobutyl ether	Ingestion	heart, hematopoietic system, immune system, nervous system, eyes, kidney and/or bladder, respiratory system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Methyl nonafluorobutyl ether	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 155 mg/l	13 weeks

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Methods: Should be taken to an authorized industrial waste handler.

Uncleaned Packaging: Recommendation: Dispose of as unused product according to official regulations.

SECTION 14: TRANSPORT INFORMATION

Not regulated per U.S. DOT, IATO or IMO.

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. DryWired® transportation classifications are based on product formulation, packaging, DryWired® policies and DryWired® understanding of applicable current regulations. DryWired® does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original DryWired® package is



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certified for U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.

SECTION 15: REGULATORY INFORMATION

US Federal Regulations: Contact DryWired® for more information.

311/312 Hazard Categories: Acute Health Hazard

State Regulations: Contact DryWired® for more information.

Chemical Inventories: The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the chemical notification requirements of TSCA. Contact DryWired® for more information.

International Regulations: Contact DryWired® for more information.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification: Health: 3, Flammability: 0, Instability: 0, Special Hazards: Not applicable.

HMIS Hazard Classification: Health: 1, Flammability: 0, Instability: 0, Physical Hazards: 0

IARC, NTP, or OSHA, as a carcinogen, lists none of the components present in this material at concentrations equal to or greater than 0.1%.

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. DRYWIRED® MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a DryWired® product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the DryWired® product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.