



# Safety Data Sheet

## DryWired® LumActiv Glass

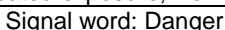
### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** DryWired® LumActiv Glass  
**Recommended Use:** Photocatalytic coating for glass surfaces.  
**Supplier:** DryWired®  
**Address:** 9606 S. Santa Monica Blvd, PH  
 Beverly Hills, CA 90210  
**Phone:** 1-800-581-4528  
**Revised On:** 09/01/16  
**Emergency Phone:** US: 1-800-535-5053, International: 1-352-323-3500

### SECTION 2: HAZARDS IDENTIFICATION

**Hazard classification:** Classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Health		Environment	Physical
Serious Eye Irritation	Category 2	Not applicable.	Not applicable.
Germ Cell Mutagenicity	Category 1B		
Reproductive Toxicity	Category 1A		
Specific target organ toxicity, single exposure; Respiratory tract irritation	Category 3		
Specific target organ toxicity, repeated exposure; Liver	Category 1		
Specific target organ toxicity, repeated exposure; Nervous System	Category 2		

**Label elements:** 



<u>Hazards Statements:</u>	<u>Precautionary Statements:</u>
H319 Causes serious eye irritation.	P201 Obtain special instructions before use.
H335 May cause respiratory irritation.	P202 Do not handle until all safety precautions have been read and understood.
H340 May cause genetic defects.	P260 Do not breathe dust/fume/gas/mist/vapours/spray.
H360 May damage fertility or the unborn child.	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
H372 Causes damage to organs through prolonged or repeated exposure.	P264 Wash skin thoroughly after handling.
	P270 Do not eat, drink or smoke when using this product.
	P271 Use only outdoors or in a well-ventilated area.
	P280 Wear protective gloves/protective clothing/eye protection/face protection.
	P281 Use personal protective equipment as required.
	P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308 + P313 IF exposed or concerned: Get medical advice/attention.
	P309 + P311 IF exposed or if you feel unwell: call a POISON CENTER or doctor/ physician.
	P312 Call a POISON CENTER or doctor/physician if you feel unwell.
	P314
	P337 + P313 If eye irritation persists: Get medical advice/ attention.
	P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
	P405 Store locked up.
	P501 Dispose of contents/container according to Section 13 of the Safety Data Sheet.

**Hazards not otherwise classified:** None.

### SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

**Chemical Characterization:** Mixtures

Component	CAS No.	Weight %
Water	7732-18-5	84.0% >
Ethanol	64-17-5	< 15.0%



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Silicon Dioxide	7631-86-9	< 0.5%
Titanium Dioxide	13463-67-7	< 0.5%

### SECTION 4: FIRST AID MEASURES

**Description of first aid measures:**

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

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If Swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in Section 2 or Section 11.

**Indication of any immediate medical attention and special treatment required:** No further relevant information available.

### SECTION 5: FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture:** Carbon oxides.

**Advice for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Further information:** No data available.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personnel precautions:** Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

**Environmental precautions:** Prevent from flowing into sewer, watercourse, or river.

**Methods for cleaning spills:** Use a water absorbent material to capture product. Keep in suitable, closed containers for disposal.

**Reference to other sections:** For disposal, see Section 13.

### SECTION 7: HANDLINGS AND STORAGE

**Precautions for Safe Handling:** Wear appropriate personal protective equipment as specified in Section 8.

**Conditions for Safe Storage, Including Incompatibilities:** Keep container tightly closed in a dry and well-ventilated place. Do not allow product to freeze. Do not store in direct sunlight. Store between 33°F (1°C) and 77°F (25°C).

**Specific End Uses:** None other than what is specified in Section 1.

### SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

**Control Parameters:** Components with workplace control parameters:

Component	CAS No.	Value	Control Parameters	Basis
Ethanol	64-17-5	TWA	1000 ppm	USA. ACHIS TLV
		TWA	1000 ppm, 1900 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		TWA	1000 ppm, 1900 mg/m <sup>3</sup>	USA. OSHA PEL 29 (CFR 1915.1000 Table Z-1).
		TWA	1000 ppm, 1900 mg/m <sup>3</sup>	USA. OSHA PEL 29 (CFR 1915.1000).
		STEL	1000 ppm	USA. ACHIS TLV
Silicon Dioxide	7631-86-9	TWA	80 mg/m <sup>3</sup> , 20 mppcf	USA. OSHA Permissible Exposure Limit (PEL) 29 (CFR 1910.1000 Z-3 Table - Mineral Dusts).
		TWA	6 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits.
		PEL	6 mg/m <sup>3</sup>	California permissible exposure limits for chemical contaminants (Title 8, Article 107).
		TWA	6 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
Titanium Dioxide	13463-67-7	TWA	15 mg/m <sup>3</sup>	USA. OSHA Permissible Exposure Limit (PEL) 29 (CFR 1910.1000 Z-1 Table).
		TWA	15 mg/m <sup>3</sup>	USA. OSHA Permissible Exposure Limit (PEL) 29 (CFR 1915.1000 Table Z-Shipyards.)



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**Exposure Controls:** Appropriate Engineering Controls: General industrial hygiene practice.

### Personal Protective Equipment:

**Eye Protection:** It is recommended to use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin Protection:** It is recommended to handle with gloves. Inspect gloves 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 substance at the specific workplace.

**Respiratory Protection:** 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).

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Slightly opaque	<b>Odour:</b>	None
<b>Odour Threshold:</b>	No data available.	<b>pH:</b>	6-9
<b>Melting Point/Freezing Point:</b>	No data available.	<b>Boiling Point:</b>	100.0°C (212.0°F)
<b>Flash Point:</b>	Not applicable.	<b>Evaporation Rate:</b>	Not applicable.
<b>Flammability (solid, gas):</b>	Not applicable.	<b>Upper/Lower Flammability of Explosive Limits:</b>	Not applicable.
<b>Vapour Pressure:</b>	3.25 at 25°C (68°F) (water)	<b>Vapour Density:</b>	Not applicable.
<b>Relative Density:</b>	1.00 at 25°C (68°F) (water)	<b>Solubility:</b>	Dispersion.
<b>Partition Coefficient: n-octanol and water:</b>	No data available.	<b>Auto-Ignition Temperature:</b>	Not applicable.
<b>Decomposition Temperature:</b>	No data available.	<b>Viscosity:</b>	< 12 mPa.s

**Other Information:** No further relevant information available.

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** No data available.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** No data available.

**Conditions to avoid:** Do not allow product to freeze. Do not store in direct sunlight.

**Incompatible materials:** No data available.

**Hazardous decomposition products:** No data available. In the event of fire: see section 5

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on toxicological effects:

**Acute toxicity:** Ethanol, CAS No. 64-17-5: Acute oral toxicity: LD50 (Rat): 7,060 mg/kg; Acute inhalation toxicity: LC50 (Rat): 124.7 mg/l; Acute dermal toxicity: No data available. Titanium dioxide, CAS 13463-67-7: LD50 Oral - Rat - > 10,000 mg/kg Inhalation: No data available. LD50 Dermal - Rabbit - > 10,000 mg/kg No data available.

**Skin corrosion/irritation:** Ethanol, CAS No. 64-17-5: Skin - Rabbit. Result: No skin irritation - 24 h (OECD Test Guideline 404). Titanium dioxide, CAS 13463-67-7: Skin - Human Result: Mild skin irritation - 3 h.

**Serious eye damage/eye irritation:** Ethanol, CAS No. 64-17-5: Eyes - Rabbit. Result: Moderate eye irritation (OECD Test Guideline 405). Titanium dioxide, CAS 13463-67-7: Eyes - Rabbit. Result: No eye irritation.

**Respiratory or skin sensitisation:** No data available.

**Germ cell mutagenicity:** Titanium dioxide, CAS 13463-67-7: Hamster, ovary, Micronucleus test. Hamster, Lungs, DNA inhibition. Hamster, ovary, Sister chromatid exchange. Mouse, Micronucleus test.

**Carcinogenicity:** Ethanol, CAS No. 64-17-5: Mouse - Oral. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease. Titanium dioxide, CAS 13463-67-7: Rat - Inhalation Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. Carcinogenicity - Rat - Intramuscular Tumorigenic: Neoplastic by RTECS criteria. Blood: Lymphomas including Hodgkin's disease. Tumorigenic: Tumors at site or application.

**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.



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**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:** Ethanol, CAS No. 64-17-5: Reproductive toxicity - Human - female - Oral. Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence.

**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:** RTECS: Ethanol, CAS No. 64-17-5: KQ6300000. Stomach - Irregularities - Based on Human Evidence (Silicon dioxide).

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: ECOLOGICAL & ECOTOXICOLOGICAL INFORMATION

### Toxicity:

**Toxicity to Fish:** Ethanol, CAS 64-17-5: LC50 - Pimephales promelas (fathead minnow) - 14,200 mg/l - 96 h. Titanium dioxide, CAS 13463-67-7, LC50 - other fish - > 1,000 mg/l - 96 h.

**Toxicity to daphnia and other aquatic invertebrates:** Ethanol, CAS 64-17-5: LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h. Titanium dioxide, CAS 13463-67-7, EC50 - Daphnia magna (Water flea) - > 1,000 mg/l - 48 h; EC0 - Daphnia magna (Water flea) - 1,000 mg/l - 48 h.

**Persistence and degradability:** Based on that of 100% Ethanol, CAS 64-17-5, since data is not available for the mixture. Readily biodegradable 95%.

**Bioaccumulative potential:** Based on that of 100% Ethanol, CAS 64-17-5, since data is not available for the mixture. Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

**Mobility in Soil:** No data available.

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

**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 for transport by DOT (US), IMDG, or IATA.

*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 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

**International Regulations:** Contact DryWired® for more information.

**US Federal Regulations:** Contact DryWired® for more information.

**SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA Section 311/312 Hazards:** Acute Health Hazard, Chronic Health Hazard

**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.

**State Regulations:** Contact DryWired® for more information.

**Massachusetts Right To Know Components:** Ethanol CAS-No. 64-17-5; Titanium dioxide, CAS-No. 13463-67-7,



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Revision Date 1994-04-01; Silicon dioxide CAS-No. 7631-86-9, Revision Date 1993-04-24.

Pennsylvania Right To Know Components: Ethanol CAS-No. 64-17-5; Titanium dioxide, CAS-No. 13463-67-7, Revision Date 1994-04-01; Silicon dioxide CAS-No. 7631-86-9, Revision Date 1993-04-24; Water CAS-No. 7732-18-5, Revision Date -.

New Jersey Right To Know Components: Ethanol CAS-No. 64-17-5; Titanium dioxide, CAS-No. 13463-67-7, Revision Date 1994-04-01; Silicon dioxide CAS-No. 7631-86-9, Revision Date 1993-04-24; Water CAS-No. 7732-18-5, Revision Date -.

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

**Chemical Inventories:** The components of this product are in compliance with the chemical notification requirements of TSCA.

#### SECTION 16: ADDITIONAL INFORMATION

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued.

DRYWIREDMAKES 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.