

## SAFETY DATA SHEET

### I. PRODUCT AND COMPANY INFORMATION



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#### Emergency Telephone Number

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<b>TRADE NAME(s)</b>	Hydroxyl Functional Adhesion Promoter	<b>CHEMICAL FAMILY/ APPLICATION/ RESTRICTIONS</b>	<b>Chemical Mixture Chemical Surface Coating/Primer/Adhesion Promoter</b>
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### II. HAZARDOUS IDENTIFICATION

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225  
 Eye irritation (Category 2A), H319  
 Skin irritation (Category 2), H315  
 Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

#### LABELING ELEMENTS, Hazard, and Precautionary Statements

**Signal word:** Danger

**Pictogram(s):**



**Hazard statement(s):**

**Precautionary statement(s)**

**Hazard statement(s):**

H225 Highly flammable liquid and vapour.  
 H315 Causes Skin Irritation  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.

**Precautionary statement(s)**

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.  
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
 P264 Wash skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 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.  
 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.  
 P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.  
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
 P403 + P235 Store in a well-ventilated place. Keep cool.  
 P501 Dispose of contents/ container to an approved waste disposal plant.

**HAZARDS NOT OTHERWISE CLASSIFIED:** May form explosive peroxides

**INGREDIENTS OF UNKNOWN ACUTE TOXICITY  $\geq$  1%:** none

### III. COMPOSITION / INFORMATION ON INGREDIENT(S)

CHEMICAL NAME/SYNONYMS	CAS NUMBER	EINECS NO.	CONC.*
Proprietary Active Blend	n/a	n/a	< 2%
Isopropanol (synonyms 2-Propanol, Isopropyl alcohol, sec-Propyl alcohol)	67-63-0	200-661-7	> 98 %

\* The specific chemical identity and/or percentage of this material has been withheld as a trade secret.

### IV. FIRST AID MEASURES

<b>INHALATION</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>SKIN CONTACT</b>	Wash off with soap and plenty of water. Consult a physician.
<b>EYE CONTACT</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>INGESTION</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
<b>MOST IMPORTANT SYMPTOMS &amp; EFFECTS</b>	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11
<b>INDICATION OF</b>	no data available

<b>ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b>	
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**V. FIREFIGHTING MEASURES**

<b>SUITABLE/ UNSUITABLE EXTINGUISHING MEDIA</b>	Use alcohol-resistant foam, dry chemical or carbon dioxide.
<b>SPECIFIC HAZARDS IE HAZARDOUS COMBUSTION PRODUCTS</b>	Burning may form Carbon oxides.
<b>PRECAUTIONS / SPECIAL PROTECTIVE EQUIPMENT</b>	Wear self contained breathing apparatus for fire fighting if necessary. Use water spray to cool unopened containers.

**VI. ACCIDENTAL RELEASE MEASURES**

<b>PERSON PRECAUTIONS, PPE, EMERGENCY PROCEDURES</b>	Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.
<b>METHODS &amp; MATERIALS OF CONTAINMENT &amp; CLEANING</b>	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Prevent material from entering storm sewers or waterways.

**VII. HANDLING AND STORAGE**

<b>PRECAUTIONS FOR SAFE HANDLING</b>	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Flashback possible over considerable distance. Container explosion may occur under fire conditions. Use explosion proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. For precautions see section II.
<b>CONDITIONS FOR SAFE STORAGE</b>	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. Handle and store under inert gas. hygroscopic

**VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION**

COMPONENT	PEL/	CONTROL	BASIS (ACGIH, OSHA	NOTES
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	TWA/ STEL	PARAMETER S	ETC)	
2-Propanol	TWA	200 ppm	ACGIH TLV	Eye & Upper Respiratory Tract irritation Central Nervous System impairment Not classifiable as a human carcinogen
	STEL	400 ppm	ACGIH TLV	Eye & Upper Respiratory Tract irritation Central Nervous System impairment Not classifiable as a human carcinogen
	TWA	400 ppm 980 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000	
	STEL	500 ppm 1,225 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000. USA. NIOSH Recommended Exposure Limits	
	TWA	400 ppm 980 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants	The value in mg/m <sup>3</sup> is approximate.
	TWA	400 ppm 980 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits	

<b>VENTILATION / ENGINEERING CONTROLS</b>	Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>RESPIRATORY PROTECTION</b>	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
<b>SKIN PROTECTION</b>	Wear appropriate protective gloves to prevent skin exposure. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is

	<p>used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.</p> <p>Full contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Breakthrough time: 480 min Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)</p> <p>Splash contact Material: Nitrile rubber Minimum layer thickness: 0.2 mm Breakthrough time: 60 min Material tested: Dermatril® P (KCL 743 / Aldrich Z677388, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374</p> <p>If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.</p>
<b>EYE PROTECTION</b>	Wear appropriate protective eyeglasses or chemical safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
<b>CLOTHING</b>	Wear appropriate protective clothing to prevent skin exposure.

### IX. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance (physical state, color, etc.)</b>	Liquid, Clear Colorless	<b>Upper/lower flammability or explosive limits:</b>	Lower: 2% UEL: 12.7%
<b>Odor</b>	alcohol-like	<b>Vapor pressure</b>	43.2 hPa (32.4 mmHg) at 20.0 °C (68.0 °F) 58.7 hPa (44.0 mmHg) at 25.0 °C (77.0 °F)
<b>Odor threshold</b>	no data available	<b>Vapor density</b>	no data available
<b>pH</b>	no data available	<b>Relative Density</b>	0.785 g/cm <sup>3</sup> at 25 °C (77 °F)
<b>Melting point/freezing point</b>	-89.5 °C (-129.1 °F) - lit.	<b>Solubility (in H<sub>2</sub>O)</b>	miscible
<b>Initial boiling point and boiling range</b>	82 °C (180 °F) - lit.	<b>Partition coefficient: n-octanol/water</b>	log Pow: 0.05
<b>Flash point</b>	12.0 °C (53.6 °F) - closed cup	<b>Auto-ignition temperature</b>	425.0 °C (797.0 °F)
<b>Evaporation rate</b>	3.0 (BuOAC = 1)	<b>Decomposition temperature</b>	no data available
<b>Flammability (solid, gas)</b>	no data available	<b>Viscosity</b>	no data available

### X. STABILITY AND REACTIVITY

<b>REACTIVITY</b>	no data available
<b>CHEMICAL STABILITY</b>	Stable under recommended storage conditions.
<b>POSSIBILITIES OF</b>	Vapours may form explosive mixture with air.

<b>HAZARDOUS REACTIONS</b>	
<b>CONDITIONS TO AVOID</b>	Heat, flames and sparks. Extremes of temperature and direct sunlight.
<b>INCOMPATIBLE MATERIALS</b>	Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids. May damage some forms of plastics with prolonged exposure.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Other decomposition products - no data available In the event of fire: see section 5

**XI. TOXICOLOGY INFORMATION**

<b>LIKELY ROUTES OF EXPOSURE</b>	<p>INHALATION: is not expected if proper ventilation or personal protective equipment is used while working with this product</p> <p>INGESTION: Ingestion is not expected if proper industrial hygiene practices are followed, including no eating, drinking, or smoking while working with chemicals</p> <p>SKIN: is not expected if proper personal protective equipment (gloves and protective clothing) is used while working with this product</p> <p>EYE CONTACT: is not expected if proper personal protective equipment (safety glasses or goggles) is used while working with this product</p>
<b>SYMPTOMS RELATED TO PHYSICAL, CHEMICAL &amp; TOXIC CHARACTERISTICS</b>	<p>INHALATION: May cause drowsiness or dizziness.</p> <p>INGESTION: Skin corrosion/irritation: Skin - rabbit; Result: Mild skin irritation</p> <p>SKIN: Serious eye damage/eye irritation: Eyes - rabbit; Result: Eye irritation - 24 h</p> <p>EYE CONTACT: Respiratory or skin sensitisation: no data available</p>
<b>DELAYED / IMMEDIATE EFFECTS, CHRONIC EFFECTS FROM SHORT/LONG TERM EXPOSURE</b>	<p>Reproductive toxicity: no data available</p> <p>Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.</p> <p>Specific target organ toxicity - repeated exposure: no data available</p> <p>Aspiration hazard: no data available</p> <p>Germ cell mutagenicity: no data available</p>
<b>NUMERICAL MEASURES OF TOXICITY</b>	<p>ACUTE TOXICITY ESTIMATES: none known</p> <p>Acute toxicity LD50 Oral - rat - 5,045 mg/kg Remarks: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Somnolence (general depressed activity). LC50 Inhalation - rat - 8 h - 16000 ppm LD50 Dermal - rabbit - 12,800 mg/kg</p>
<b>CARCINOGENICITY</b>	<p>Carcinogenicity: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.</p> <p>IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Isopropanol)</p> <p>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.</p> <p>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a</p>

carcinogen or potential carcinogen by OSHA.
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## XII. ECOLOGICAL INFORMATION

<b>ECOTOXICITY</b>	See below for the relevant data for the Isopropanol. The other components either have no ecotoxicological effects or no data exists.  Toxicity to fish LC50 - LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 h Toxicity to algae EC50 - EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 h EC50 - Algae - > 1,000.00 mg/l - 24 h
<b>PERSISTENCE AND DEGRADABILITY</b>	No data available
<b>BIOACCUMULATIVE POTENTIAL</b>	No data available
<b>MOBILITY IN SOIL</b>	No data available
<b>OTHER ADVERSE EFFECTS (OZONE LAYER ETC.)</b>	No data available

## XIII. DISPOSAL CONSIDERATIONS

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging Disposal: Dispose of as unused product.

## XIV. TRANSPORTATION INFORMATION

UN/NA	UN/NA PROPER SHIPPING NAME	TRANSPORT HAZARD CLASS	PACKING GROUP
UN 1993	Flammable Liquid n.o.s. (contains Isopropanol)	3	II

<b>US DOT/IATA</b>	UN 1993 Flammable Liquid n.o.s.,3, II, ( Contains Isopropanol)
<b>ENVIRONMENTAL HAZARDS</b>	Marine Pollutant: NO
<b>BULK TRANSPORT (MARPOL 73/78/IBC CODE)</b>	<b>IMDG:</b> UN 1993 Flammable Liquid n.o.s.,3, II, (Contains Isopropanol) EMS-No: F-E, S-D
<b>SPECIAL PRECAUTIONS</b>	none known

## XV. REGULATORY INFORMATION

## US

<b>TSCA</b>	The components in this mixture are listed on the US inventory.
<b>OSHA</b>	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard.
<b>SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
<b>The following components are subject to reporting levels established by SARA Title III, Section 313</b>	2- Propanol, CAS# 67-63-0 Revision Date 1987-01-01
<b>Sara 311/312 Hazards</b>	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
<b>Massachusetts Right To Know Components</b>	2- Propanol, CAS# 67-63-0 Revision Date 1987-01-01
<b>Pennsylvania Right To Know Components</b>	2- Propanol, CAS# 67-63-0 Revision Date 1987-01-01
<b>New Jersey Right To Know Components</b>	2- Propanol, CAS# 67-63-0 Revision Date 1987-01-01
<b>California Prop. 65 Components</b>	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## XVI. OTHER INFORMATION

Revision Date: 09/26/14  
 HMIS Rating  
 Health hazard: 2  
 Chronic Health Hazard: \*  
 Flammability: 3  
 Physical Hazard 0

NFPA Rating  
 Health hazard: 2  
 Fire Hazard: 3  
 Reactivity Hazard: 0

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