

SDS SHEET

[In accordance with the regulation no 1907/2006 (Reach) and 453/210]

SECTION 1 Identification

Product identifier Adhesive U 410-D

Other means of identification

Recommended use: Contact Adhesive

Manufacturer: Hydro-Gard, LLC

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Incident Spill, Leak, Fire, Exposure, or Accident CHEMTREC Day or Night
1-800-424-9300 / +1 703-527-3887 CCM825652

SECTION 2 Hazard (s) Identification

Classification of substance or mixture

Flammable Liquid 2;H225 Highly Flammable - Liquid and Vapor

Eye Irritation: 2;H319 Causes serious eye irritation

Respiratory Sensitive: 1;H334 May cause allergy or asthma symptoms of breathing difficulties if inhaled.

Skin Sensitive: 1;H317 May cause an allergic skin reaction

Carcinogen: 2;H351 Suspected of causing cancer

STOT SE 3;H319 May cause drowsiness or dizziness

Label elements

Hazard symbols and signal words



Signal Word Danger

Product Identifier Contains:

Hazard Statements:

H225 Highly flammable liquid and vapor

H317 May cause and allergic skin reaction

H319 Causes serious eye irritation

H334 May cause allergic or asthmatic symptoms or breathing

H336 May cause drowsiness and dizziness

H351 Suspected of causing cancer

Precautionary statements

P201 Obtain special instructions before use

P202 Do not handle until all safety precaution have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces - No Smoking

P235 Keep cool

P240 Ground/bond container and receiving equipment

P241 Use explosion-proof electrical/ventilating/light/equipment

P242 Use only non-sparking tools

P243 Take precautionary measures against static discharge

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P264 Wash thoroughly after handling

P271 Use only outdoors or in a well-ventilated area

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear protective gloves/eye protection/face protection

Response

P302+352 IF ON SKIN Wash with plenty of soap and water

P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+312 IF INHALED: Call POISON CENTER or doctor/physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+313 IF exposed or concerned: Get Medical advise/attention.

P321 Specific treatment (see information on this label).

P333+313 IF skin irritation or a rash occurs: Get medical attention.

P337+313 If eye irritation persists: Get medical advice/attention.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P341 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or Doctor/Physician

P363 Wash contaminated clothing before reuse

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction

Storage

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/national regulations

Other hazards:

SECTION 3**Composition / Information on Ingredients**

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations:

Dangerous ingredients:

Chemical name	GHS Classifications	Identifier Codes	Weight %
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatob]	Skin Sensitive 1;H317 Respiratory Sensitive 1;H334	CAS # 0059675-67-1	50-75
Acetone	Farmable Liquid 2;H225 Eye Irritant 2;H319 STOT SE 3;H336	CAS # 0000067-64-1	25-50
Amorphous Silica, hydrophobic	Not Classified	CAS # 0067762-90-7	1.0-10
Diphenylmethanediisocyanate	Carcinogen 2;H351 Acute Toxic 4;H332, STOT RE 2;H373 Eye Irritant 2;H319, STOT SE 3;H335 Skin Irritant 2;H315, Skin Sensitive 1;H317 Respiratory Sensitive 1;H317	CAS # 0000101-68-8	0.10-1.0

In accordance with paragraph (I) of 1910,1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard. [2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB substance. * The full texts of the phrases are shown in Section 16

SECTION 4**First - Aid Measures**

General Information:	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person
Inhalation:	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped give artificial respiration. If unconscious place in a recovery position and obtain immediate medical attention. Give nothing by mouth.
Skin Contact:	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Eye contact:	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Ingestion:	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. If vomiting should occur spontaneously keep victims head below knees to prevent aspiration into the lungs.
Most important symptoms and effects, both acute and delayed	EFFECTS OF OVEREXPOSURE:
INHALATION	High concentrations, or prolonged exposure to lower concentrations may be irritating to mucous membranes and may cause CNS depression. May cause respiratory sensitization. May cause drowsiness or dizziness. May cause allergy or asthma symptoms of breathing difficulties if inhaled.
EYE CONTACT	Liquid or high vapor concentrations can be severely irritating to the eyes. Causes serious eye irritation.
SKIN CONTACT	Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). Absorption may lead to the absorption of harmful chemical components and/or respiratory sensitization to MDI. Protective rubber gloves should be worn at all times when working with this product.

INGESTION Moderate CNS Depression may be shown by giddiness, headache, dizziness and nausea. If vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs. Aspiration pneumonitis may be evidenced by coughing and cyanosis. This material may be harmful or fatal if swallowed.

CHRONIC HAZARDS Eye: May cause irritation with tearing
Skin: May cause skin irritation and dermatitis
Ingestion: May cause irritation and corrosion on the mouth and stomach tissue.
Inhalation: May cause irritation to upper respiratory tract and at higher concentrations narcosis or CNS Depression.
Both inhalation and skin contact may cause allergic sensitivity.

This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Medical Conditions Generally Aggravated by Exposure - Skin contact may aggravate an existing dermatitis. Preexisting eye, kidney, lung and respiratory disorders may be aggravated.

Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Inhalation May cause drowsiness or dizziness
Eyes Causes serious eye irritation
Skin May be harmful if swallowed. (Not adopted by US OSHA)

SECTION 5 Fire - Fighting Measures

Extinguishing media

Suitable extinguishing media: Carbon Dioxide, Dry chemical, Foam

Special hazards arising from the substance or mixture Hazardous decomposition: Burning may produce fumes of isocyanate, carbon dioxide, carbon monoxide, hydrogen cyanide, phosgene and nitrous oxides. Keep away from heat/sparks/open flames/hot surfaces-no smoking. Keep Cool Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/light/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray.

Advice for fire fighters Volatile solvent constituent can readily form explosive or flammable mixtures in air. Vapors can flow along distant ignition sources and flash back. Wear self-contained breathing apparatus and full protective clothing.

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SECTION 6**Accidental Release Measures**

Personal precautions,
protective equipment and
emergency procedures

Put on appropriate personal protective equipment (see section 8)

Environmental precautions

Do not allow spills to enter drains or waterways.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet.
Promptly remove soiled clothing and wash thoroughly before reuse.

Methods and material for
containment and cleaning
up

Handle as a flammable liquid. Remove all ignition sources. Soak up wet material on a non-combustible absorbent and place in a closed metal container.

SECTION 7**Handling and Storage**

Precautions for safe handling

Ground and bond metal containers when dispensing. No smoking in areas of use or storage. Use only non-sparking tools near wet adhesive or solvent vapors. Solvent vapor is much heavier than air and can collect in dangerous concentrations in floor drains or low areas.
See section 2 for further details - (Prevention)

Conditions for safe storage,
including any incompatibilities

Handle containers carefully to prevent damage and spillage.
Store in accordance with the National Fire Protection Association's publication NFPA 30, Flammable and Combustible Liquids Code. 29 CFR 1910.106 applies to the handling storage, and use of flammable and combustible liquids.

Incompatible materials: Water, acid, base, alcohols, metal compound, surface-active materials. Strong oxidizing agents can cause spontaneous combustion.
Store in cool, well ventilated area away from any ignition sources and strong oxidizing agents. Keep containers tightly closed when not in use. Do not transfer to plastic containers.
See section 2 for further details. - (Storage):

Specific and use (s)

No data available

SECTION 8**Exposure Controls / Personal Protection**



Control Parameters

Components with Community workplace exposure limits:

CAS NO.	Ingredient	Source	Value
0000067-64-1	Acetone	OSHA ACGIH NIOSH Supplier	TWA 1000ppm (2400 mg/m ³) STEL 2400 mg/m ³ TWA 250 ppm STEL: 500 ppm Skin 250 ppm (590 mg/m ³) TWA No Established Limit
0000101-68-8	Diphenylmethanediisocyanate	OSHA ACGIH NIOSH Supplier	No Established Limit No Established Limit No Established Limit No Established Limit
0059675-67-1	Oxirane, methyl-polymer with oxirane, either with 1,2,3-propanetriol (3:1), polymer with 1,1'-methylenebis[4-isocyanatob]	OSHA ACGIH NIOSH Supplier	No Established Limit No Established Limit No Established Limit No Established Limit
0067762-90-7	Amorphous silica, hydrophobic	OSHA ACGIH NIOSH Supplier	No Established Limit No Established Limit No Established Limit No Established Limit

CARCINOGEN DATA

CAS No.	Ingredient	Source	Value
0000067-64-1	Acetone	OSHA NTP IARC	Select Carcinogen: No Known: No; Suspected: No Group1: No Group 2a: No Group 3: No Group 4: No
0000101-68-8	Diphenylmethanediisocyanate	OSHA NTP IARC	Select Carcinogen: No Known: No; Suspected: No Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes Group 4: No
0059675-67-1	Oxirane, methyl-polymer with oxirane, either with 1,2,3-propanetriol (3:1), polymer with 1.1'-methylenebis[4-isocyanatob]	OSHA NTP IARC	Select Carcinogen: No Known: No; Suspected: No Group 1: No; Group 2a: No; Group 2b: No; Group 3: No Group 4: No
0067762-90-7	Amorphous silica, hydrophobic	OSHA NTP IARC	Select Carcinogen: No Known: No; Suspected: No Group 1: No; Group 2a: No; Group 2b: No; Group 3: No Group 4: No

Exposure Controls	
Respiratory 	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
Eye protection 	Safety glasses or chemical goggles should be worn. If exposures causes eye discomfort, use a full-face respirator.
Skin / Body Protection	Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Use neoprene, vinyl or natural rubber gloves.
Engineering Controls	Provide adequate ventilation, Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulate and any vapor below occupational exposure limits suitable respiratory protection must be worn
Other Work Practices	Eye wash fountain or bottles. Solvent insoluble barrier hand cream. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

SECTION 9**Physical and Chemical Properties**

Information on basic physical and chemical properties

Appearance	Medium viscosity, clear syrup
Odor	Acetone
Odor threshold	Not Measured
pH:	Not Measured
Melting point/freezing point:	Not Measured
Initial boiling point and boiling range:	133 °F (56.11°C)
Flash point:	-4°F (-20°C)
Evaporation Rate (Ether=1):	SLOWER THAN ETHER
Flammability (solid, gas)	Not Applicable
Upper/Lower Flammability or Explosive Limits	Lower Explosive Limit: 2.2% Upper Explosive Limit: 13.0%
Vapor Pressure (Pa)	Not Measured
Vapor Density	HEAVIER THAN AIR
Specific Gravity	0.85 (H2O=1)
Solubility in Water	Nil
Partition Coefficient: n-octanol/water (Log Kow):	Not Measured
Auto-Ignition Temperature:	Not Measured
Decomposition Temperature:	Not Measured
Viscosity: (cSt)	Not Measured
VOC	COATING V.O.C: 5 G/L, MATERIAL V.O.C.: 1g/l
Other Information:	No other relevant information

SECTION 10**Stability and Reactivity**

Reactivity	Hazardous Polymerization will not occur
Chemical stability	Stable under normal circumstances.
Possibility of hazardous reactions	No data available
Condition to avoid	Avoid contact with open flame, sparks or hot surfaces.
Incompatible materials	Avoid contact with strong acids and bases. Contact with strong oxidizers may cause fire and explosion.
Hazardous decomposition products	Oxides of carbon and nitrogen, low molecular weight hydrocarbons and organic acids.

SECTION 11

Toxicological Information

Information on toxicological effects

Acute toxicity:

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases., loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Acetone- (67-64-1)	2,000.00 Rat- Category: 4	2,000.00 Rabbit- Category: 4	76.00, Rat - Category: N/A	No Data Available	No Data Available
Hexanedioic acid, polymer with 1,4-btanediol, 1,6-hexanediol and 1,1'-methylenebis [4-isocyanatobenzene] -(30662-91-0)	No Data Available	No Data Available	No Data Available	No Data Available	No Data Available
Ethanol, 2-butoxy-, phosphate (3:1)-(78-51-3)	No Data Available	No Data Available	No Data Available	No Data Available	No Data Available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Toxicity of the product:	Category	Hazard Description
Acute Toxicity (oral)	5	May be harmful if swallowed. (Not adopted by US OSHA)
Acute Toxicity (dermal)	5	May be harmful if swallowed. (Not adopted by US OSHA)
Acute Toxicity (inhalation)		N/A
Skin Corrosion/Irritation	--	N/A
Serious Eye Damage/Irritation	2	Causes serious eye irritation
Respiratory or skin Sensitisation	--	N/A
Skin sensitization	--	N/A
Germ Cell Mutagenicity	--	N/A
Carcinogenicity	--	N/A
Reproductive toxicity	--	N/A
STOT-single exposure	3	May cause drowsiness
STOT-repeated exposure	--	Not Applicable
Aspiration Danger	--	Not Applicable

SECTION 12 Ecological Information (non-mandatory)

Toxicity

Aquatic toxicity: Toxic to aquatic life

Ingredient	96hr LC50 fish, mg/1	48 hr EC50 crustacea, mg/1	Er50 algae, mg/1
Acetone	100.00 Pimephales promelas	10.00, Daphnia magna	20.565 (72 hr), Ulva pertusa
Hexanedioic acid, polymer with 1,4-butanediol, 1,6- hexanediol and 1.1'-methylenebis[4-isocyanatobenzene] - (30662-91-0)	Not Available	Not Available	Not Available
Ethanol, 2-butoxy-, phosphate (3.1)-(78-51-3) c	Not Available	Not Available	Not Available

Persistence and degradability: There is no data available on the preparation itself

Bioaccumulative potential: Not Measured

Mobility in soil: No data available

Results of PBT and vPvB assessment: This product contains no PBT/vPvB chemicals

Other adverse effects: No data available

SECTION 13 Disposal Consideration (non-mandatory)

Waste treatment methods: Observe all federal, state and local regulations when disposing of this substance

SECTION 14 Transport Information (non-mandatory)

	DOT (Domestic Surface Transportation)	IMO/IMDG (Ocean Transportation)
UN number	UN1133	UN1133
UN proper shipping name	UN1133, Adhesives, containing a flammable liquid, 3, II	Adhesives, containing a flammable liquid
Transport hazard class (es)	DOT Hazard Class: 3	IMDG: 3
Hazard class (es)	DOT Label: 3	Sub Class: Not Applicable
Packing group	II	II
Environmental Hazards IMDG	Marine Pollutant: No	
Special precautions for user	No further information	

SECTION 15**Regulatory Information (non-mandatory)**

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA inventory.
WHMIS Classification	B2 D2B
US EPA Tier II Hazards	Fire: Yes Sudden Release of Pressure: No Reactive: No Immediate (Acute): Yes Delayed (Chronic): No
EPCRA 311/312 Chemicals and Rqs (lbs):	Acetone (5,000.00)
EPCRA 302 Extremely Hazardous	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
Proposition 65-Carcinogens (>0.0%)	Benzene
Proposition 65-Developmental Toxins (>0.0%)	Benzene Toluene
Proposition 65 - Female Repro Toxins (>0.0%)	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
Proposition 65 - Male Repro Toxins (>0.0%)	Benzene
N.J. RTK Substances (>1%)	Acetone
Penn RTK Substances (>1%)	Acetone

SECTION 16**Other Information, Including date of preparation or last revision**

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation
H336	H336 May cause drowsiness and dizziness

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable/

The information and recommendations provided in this Safety Data Sheet are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information supplied upon the condition that the persons receiving said information will make their own determination as to its suitability for their particular purpose prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representation or warranties, either expressed or implied. Including the merchantability or fitness for a particular purpose are made herein with information contained herein is deemed to be reliable, conservative and accurate. Hydro-Gard, LLC reserves the right to change the design, specification or any other features at any time, without notice, while otherwise maintaining regulatory compliance.

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