

MATERIAL SAFETY DATA SHEET

CytoBond™ Removable Coverslip Sealant*

*Patent pending

Pub No.: M225

Rev.: 10/04/2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CytoBond Removable Coverslip Sealant
PART NO: 2020-00-X
MANUFACTURER: SciGene Corporation
 470F Lakeside Drive
 Sunnyvale, CA 94085 USA
EMERGENCY PHONE: Poison Control
 In U.S. 800-222-1222
 Outside U.S. Contact your local poison control center

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards: Flammable liquid, Irritant
GHS Classification: Flammable liquids (Category 2)
 Skin irritation (Category 2)
 Specific target organ toxicity - single exposure (Category 3)
 Aspiration hazard (Category 1)
 Acute aquatic toxicity (Category 1)
 Chronic aquatic toxicity (Category 1)

GHS Label elements, including precautionary statements

Pictograms:



Signal word: Danger
Hazard statements: H225 Highly flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H336 May cause drowsiness or dizziness.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s): P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P273 Avoid release to the environment.
 P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

HMIS Classification

Health hazard: 2
Flammability: 3
Physical hazards: 0

NFPA Rating

Health hazard: 2
Fire: 3
Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.
Ingestion: May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

NAME	CAS NO	%
Heptane	142-82-5	40-50%
Hydrotreated heavy naptha (petroleum)	64742-48-9	30-50%
Xylenes	1330-20-7	10-20%

There are no ingredients or additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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SECTION 4: FIRST AID MEASURES

General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact:	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact:	Flush eyes with water as a precaution.
If swallowed:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

SECTION 5: FIRE-FIGHTING MEASURES

Flammability:	Severe fire hazard. Vapor is heavier than air and may ignite at distant sources and flash back. Vapor/air mixtures are explosive.
Products of combustion:	Aldehydes, oxides of carbon.
Suitable Extinguishing Media:	Regular dry chemical, carbon dioxide, water spray, regular foam
Protective Equipment:	Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.
Fire Fighting Measures:	Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out.
Sensitivity to Mechanical Impact:	Not sensitive
Sensitivity to Static Discharge:	Yes

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions:	Use personal protective equipment. Avoid breathing vapors. Evacuate personnel to safe areas.
Environmental precautions:	Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray.
Methods and materials for containment and clean up:	Absorb spills with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

Handling:	Use in a well ventilated area. Use rubber globes. Avoid contact with eyes, skin or clothing. Avoid breathing vapors. Wash thoroughly after handling. Keep away from heat, sparks or flame.
Storage:	Store in accordance with local regulations. Subject to storage regulations: U.S. OSHA 29 CFR 1910.106. Avoid heat, flames, sparks and other sources of ignition. Keep separated from incompatible substances. Store in a well ventilated area. Keep container closed.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits		Heptane (142-82-5)		
Country	Source	Type	Value	
USA	ACGIH	STEL	500 PPM	
USA	ACGIH	TWA	400 PPM	
USA	MSHA	Standard-air	TWA	500 PPM (2000 MG/M3)
USA	OSHA	TWA	500 PPM (2000 MG/M3)	
USA	OSHA	TWA	400 PPM (1600MG/M3)	
USA	OSHA	STEL	500 PPM (2000MG/M3)	
USA	NIOSH	TWA	85 PPM	
USA	NIOSH	C	440 PPM (1800 MG/M3) 15 M	
Xylene (1330-20-7)				
Country	Source	Type	Value	
USA	ACGIH	STEL	150 PPM (651 MG/M3)	
USA	ACGIH	TWA	100 PPM (435 MG/M3)	
USA	OSHA	TWA	100 PPM (435 MG/M3)	
USA	OSHA	STEL	150PPM (655 MG/M3)	
USA	NIOSH	TWA	100 PPM	
USA	NIOSH	STEL	150 PPM	
Hydrotreated Heavy Naptha (64742-48-9)				
Country	Source	Type	Value	
USA	ExxonMobil	TWA	171PPM	

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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

Hygiene Measures:	Wash thoroughly after handling. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Skin and body protection:	Complete suit protecting against chemicals. The type of equipment must be selected according to the concentration and amount of chemical at the specific workplace.
Eyes:	Goggles or safety glasses with eyeshields
Hands:	Chemical resistant protective gloves.
Respiratory:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels and the safe working limits of the selected respirator.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Translucent liquid
Color:	Colorless
Physical state:	Liquid
pH:	Neutral to basic
Boiling/condensation point:	N/A
Melting /freezing point:	N/A
Solubility:	Not soluble in water
Odor:	Solvent
Viscosity:	N/A
Explosion limits:	N/A
Flash point:	N/A
Density:	N/A
Flammability:	Flammable

SECTION 10: STABILITY AND REACTIVITY

Stability and reactivity:	Stable under normal conditions.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Freezing temperatures.
Incompatibility with various substances:	Strong acids/bases and oxidizing agents.
Hazardous decomposition products:	Carbon monoxide, carbon dioxide.
Hazardous Polymerization:	Will not occur under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION**LD50 not established for this Product**

Component Analysis	Heptane (142-82-5)
Acute toxicity:	Inhalation LC50 Rat 103,000 mg/m3 Intravenous Mouse, 222mg/kg Oral LD50 Mouse 5000mg/kg Dermal LD50 no data available
Other information on acute toxicity:	no data available
Skin corrosion/irritation:	no data available
Serious eye damage/eye irritation:	Eyes - rabbit - No eye irritation - OECD Test Guideline 405
Respiratory or skin sensitization:	no data available
Germ cell mutagenicity:	no data available
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.
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.
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:	no data available
Teratogenicity :	no data available

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Specific target organ toxicity - single exposure (Globally Harmonized System):	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure (Globally Harmonized System):	no data available
Aspiration hazard:	May be fatal if swallowed and enters airways.
Potential health effects:	
Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness.
Ingestion:	May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.
Skin:	May be harmful if absorbed through skin. Causes skin irritation.
Eyes:	Causes eye irritation.
Signs and Symptoms of Exposure:	Prolonged or repeated exposure to skin causes defatting and dermatitis., Central nervous system depression, narcosis, Damage to the lungs
Synergistic effects:	no data available
Additional Information:	RTECS: Not available
Component Analysis	Xylene (1330-20-7)
Acute toxicity:	Oral LD50 LD50 Oral - rat - 4,300 mg/kg Remarks: Liver:Other changes. Kidney, Ureter, Bladder:Other changes. Inhalation LC50 LC50 Inhalation - rat - 4 h - 5000 ppm Dermal LD50 LD50 Dermal - rabbit - > 1,700 mg/kg
Other information on acute toxicity:	no data available
Skin corrosion/irritation:	Skin - rabbit - Skin irritation - 24 h
Serious eye damage/eye irritation:	Eyes - rabbit - Mild eye irritation
Respiratory or skin sensitization:	no data available
Germ cell mutagenicity:	no data available
Carcinogenicity	IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Xylene) 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:	no data available
Teratogenicity:	no data available
Specific target organ toxicity - single exposure (Globally Harmonized System):	no data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System):	no data available
Aspiration hazard:	no data available
Potential health effects	
Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion:	May be harmful if swallowed.
Skin:	Causes skin irritation.
Eyes:	Causes eye irritation.
Signs and Symptoms of Exposure:	Blurred vision, Incoordination., Headache, Nausea, Vomiting, Dizziness, Weakness, anemia, Prolonged or repeated exposure to skin causes defatting and dermatitis.
Synergistic effects:	no data available
Additional Information:	RTECS: Not available

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Component Analysis <i>SOURCE – ExxonMobil</i>	Hydrotreated heavy naptha (64742-48-9)
Inhalation-Toxicity:	Minimally Toxic
Inhalation Irritation:	Negligible at ambient/normal handling temperatures
Ingestion LD50>10000mg/kg:	Minimally Toxic
Skin Toxicity LD50>3160mg/kg:	Minimally Toxic
Skin Irritation:	May dry the skin leading to discomfort.
Eye:	May cause mild, short-lasting discomfort.
Chronic /Other Effects:	Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract. May cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Component not found on the following regulatory lists:

- NTP CARC
- NTP SUS
- IARC 1
- IARC 2A
- AIRC 2B
- OSHA CARC

SECTION 12: ECOLOGICAL INFORMATION

Component Analysis:	Heptane (142-82-5)
Toxicity:	Toxicity to fish LC50 - Carassius auratus (goldfish) - 4 mg/l - 24.0 h LC50 - Tilapia mossambica - 375 mg/l - 96.0 h Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 1.50 mg/l - 48 h
Persistence and degradability:	no data available
Bioaccumulative potential:	Indication of bioaccumulation
Mobility in soil:	no data available
PBT and vPvB assessment:	no data available
Other adverse effects:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects. Do not empty into drains. Avoid release to the environment.
Component Analysis:	Xylene (1330-20-7)
Toxicity:	Toxicity to fish LC50 - Morone saxatilis - 2 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 75.49 mg/l - 24 h Toxicity to algae Growth inhibition EC50 - Pseudokirchneriella subcapitata - 72 mg/l - 14 d
Persistence and degradability:	no data available
Bioaccumulative potential:	no data available
Mobility in soil:	no data available
PBT and vPvB assessment:	no data available
Other adverse effects:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.
Component Analysis:	Hydrotreated heavy naptha (64742-48-9)
Toxicity:	Not expected to be harmful to aquatic organisms.
Biodgradation:	Expected to be readily biodegradable
Hydrolysis:	Transformation due to hydrolysis not expected to be significant
Photolysis:	Transformation due to photolysis not expected to be significant
Atmospheric Oxidation:	Expected to degrade rapidly in air
Other Ecological Information:	VOC (EPA Method 24): 6.401 lbs/gal

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal: Dispose of material in accordance with all Federal, State and Local regulations.

Refer to **SECTION 7: HANDLING AND STORAGE** and **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION** for additional handling information and protection of employees.

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SECTION 14: TRANSPORT INFORMATION

US DOT Information (49 CFR):	Shipping Name: Adhesives UN/NA #: UN1133 Hazard Class: 3 Packing Group II Required Label(s): 3
TDG Information:	Shipping Name: Adhesives UN #: UN1133 Hazard Class: 3 Packing Group II Required Label(s): 3
IATA Information:	Shipping Name: Adhesives UN/NA #: UN1133 Hazard Class: 3 Packing Group II Required Label(s): 3

SECTION 15: REGULATORY INFORMATION

OSHA Hazards:	Flammable liquid, Target Organ Effect, Harmful by skin absorption., Irritant
SARA 302 Components:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components:	The following components are subject to reporting levels established by SARA Title III, Section 313: Xylene CAS-No.1330-20-7 Revision Date 1989-08-11
SARA 311/312 Hazards:	Fire Hazard, Acute Health Hazard
	Massachusetts Right To Know Components
	Heptane CAS-No. 142-82-5 Revision Date 1993-04-24
	Xylene CAS-No. 1330-20-7 Revision Date 1989-08-11
	Pennsylvania Right To Know Components
	Heptane CAS-No.142-82-5 Revision Date 1993-04-24
	Xylene CAS-No 1330-20-7 Revision Date 1989-08-11
	New Jersey Right To Know Components
	Heptane CAS-No. 142-82-5 Revision Date 1993-04-24
	Xylene CAS-No. 1330-20-7 Revision Date 1989-08-11
California Prop. 65 Components:	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

Notice to reader

DISCLAIMER: This Material Safety Data Sheet is offered without charge to the clients of SciGene. Data is the most current available to SciGene at the time of preparation and is issued as a matter of information only, no warranty as to its accuracy or completeness is expressed or implied.