

MATERIAL SAFETY DATA SHEET

MSDS 0074

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

	HMIS CODES	
PRODUCT NAME	Health	2
Gene 404L Low VOC	Flammability	3
	Reactivity	1
PRODUCT CODES	PPI	B
55011, 55013, 55014, 55015, 55017, 55019, 55021, 55023, 55901, 55902, 55904, 55906, 55908		
CHEMICAL FAMILY		
Organic		
USE		
PVC Solvent Cement		
MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.	
The RectorSeal Corporation	Chemtrec 24 Hours	
2601 Spenwick Drive	(800)424-9300 USA	
Houston, Texas 77055 USA	001-527-3887 International	
DATE OF VALIDATION	TECHNICAL SERVICE TELEPHONE NO.	
April 19, 2012	(800)231-3345 or (713)263-8001	
DATE OF PREPARATION		
April 19, 2012		

Section 2 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

OSHA Hazards
Flammable liquid, Target Organ Effect, Irritant

TARGET ORGANS
Liver, KidneyLiver, Kidney

GHS CLASSIFICATION

PHYSICAL HAZARDS: Flammable Liquid, Category 2

HEALTH HAZARDS

Acute Toxicity:
Oral: Category 4
Dermal: Category 5
Inhalation: Category 4
Skin Corrosion/Irritation: Category 3
Serious Eye Damage/Eye Irritation: Category 2A
Skin Sensitization: Not Classified
Respiratory Sensitization: Not Classified
Germ Cell Mutagenicity: Not Classified
Carcinogenicity: See Section 11
Reproductive Toxicology: Not Classified
Target Organ Systemic Toxicity - Single Exposure: Category 3
Target Organ Systemic Toxicity - Repeated Exposure: Not Classified
Aspiration Toxicity: Not Classified

GHS Label elements, including precautionary statements
Pictogram: Flammable, Harmful / Irritant
Signal Word: Danger
Hazard Statements:
H225 - Highly flammable liquid and vapor

H302 - Harmful if swallowed.
H313 - May be harmful in contact with skin.
H316 - Causes mild skin irritation.
H318 - Causes serious eye damage.
H319 - Causes serious eye irritation
H335 + H336 - May cause respiratory irritation, and drowsiness or dizziness.
Precautionary Statements:
P102 - Keep out of reach of children.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P240 - Ground/Bond container and receiving equipment
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P362 - Take off contaminated clothing and wash before reuse.
EUH066 - Repeated exposure may cause skin dryness or cracking
Precautionary Statements - EU No. 1272/2008

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the R phrases mentioned in this Section, see Section 16
Symbol(s) Xi - Irritant
F - Highly flammable
R -phrase(s)
R11 - Highly flammable
R36 - Irritating to eyes
R66 - Repeated exposure may cause skin dryness or cracking
R67 - Vapors may cause drowsiness and dizziness
R-code(s) F;R11 - Xi;R36 - R66 - R67

SUMMARY OF ACUTE HAZARDS

Overexposure may cause coughing, shortness of breath, dizziness, central nervous system depression, intoxication and collapse. It may cause irritation to the respiratory tract and to other mucous membranes.

ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS

INHALATION

Overexposure may cause coughing, shortness of breath, dizziness, central nervous system depression, intoxication and collapse. It may cause irritation to the respiratory tract and to other mucous membranes.

EYE CONTACT

Severely irritating. If not removed promptly, will injure eye tissue, which can result in permanent damage.

SKIN CONTACT

Frequent or prolonged contact may irritate and cause dermatitis. Low order of toxicity.

INGESTION

Low order of toxicity. Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

SUMMARY OF CHRONIC HAZARDS

Repeated or prolonged exposure may cause signs of central nervous system depression and respiratory irritation. This material has been shown to

induce tumors in laboratory animals.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver, or kidneys may have increased susceptibility to excessive exposure.

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Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Methyl Ethyl Ketone
PERCENTAGE BY WEIGHT: 1-12
CAS NUMBER: 78-93-3
EC# : 606-002-00-3

INGREDIENT: Tetrahydrofuran
PERCENTAGE BY WEIGHT: 40-60
CAS NUMBER: 109-99-9
EC# : 603-025-00-0

INGREDIENT: Cyclohexanone
PERCENTAGE BY WEIGHT: 8-18
CAS NUMBER: 108-94-1
EC# : 606-010-00-7

INGREDIENT: Acetone
PERCENTAGE BY WEIGHT: 5-20
CAS NUMBER: 67-64-1
EC# : 200-662-2
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Section 4 -- FIRST AID MEASURES

If INHALED: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

If on SKIN: Immediately flush with large amounts of water; use soap if available. Remove contaminated clothing.

If in EYES: Immediately flush with large amounts of water for at least 15 minutes. Get prompt medical attention.

If SWALLOWED: If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

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Section 5 -- FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

SUITABLE EXTINGUISHING MEDIA

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Wear self contained breathing apparatus for fire fighting if necessary.

HAZARDOUS COMBUSTION PRODUCTS

Hazardous decomposition products formed under fire conditions. - Carbon oxides

FURTHER INFORMATION

Use water spray to cool unopened containers.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Extremely flammable - very low flash point. Vapors are heavier than air and may travel along ground or to low spots at considerable distance to a source of ignition resulting in potential flashback. Burning liquid may float on water. Heat may build up pressure and rupture closed containers.

Section 6 -- ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Ventilate area with natural or explosion-proof, forced air ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations.

Vapors can accumulate in low areas.

ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so. Avoid flushing into sewers, drains, waterways, and soil.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Use absorbent materials to prevent footing hazard and to contain, then collect and place in container for disposal according to local regulations (see section 13).

Section 7 -- HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Avoid prolonged or repeated contact with skin or clothing. If transferring this material to other containers, ground all containers to avoid static electricity buildup and discharge which may ignite flammable vapors.

CONDITIONS FOR SAFE STORAGE

Do not store near heat, sparks, or open flames. 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.

Empty containers may contain residues and vapors; treat as if full and observe

all products precautions. Do not reuse empty containers.

KEEP OUT OF REACH OF CHILDREN.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT	UNITS
Methyl Ethyl Ketone	
ACGIH TLV	200 ppm
OSHA PEL	200 ppm
STEL	300 ppm
Tetrahydrofuran	
ACGIH TLV	50 ppm
OSHA PEL	200 ppm
STEL	250 ppm
Cyclohexanone	
ACGIH TLV	20 ppm (skin)
OSHA PEL	50 ppm
Acetone	

ACGIH TLV 500 ppm
OSHA PEL 1000 ppm
STEL 750 ppm

RESPIRATORY PROTECTION (SPECIFY TYPE): In confined poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air purifying or supplied air respirators.

VENTILATION - LOCAL EXHAUST: Acceptable

SPECIAL: Explosion-proof equipment.

MECHANICAL (GENERAL): Preferable

OTHER: N/A

PROTECTIVE GLOVES: Wear rubber gloves.

EYE PROTECTION: Chemical splash goggles (ANSI Z-87.1 or equivalent)

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.

WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 151 F (66 C) @ 760mm Hg
SPECIFIC GRAVITY (H2O = 1): 0.91
VAPOR PRESSURE (mm Hg): 129 @ 68 F (20 C)
MELTING POINT: N/A
VAPOR DENSITY (AIR = 1): 2.5
EVAPORATION RATE (ETHYL ACETATE = 1): 8-14.5
APPEARANCE/ODOR: Liquid/Pungent Odor
SOLUBILITY IN WATER: Soluble
VOC LEVEL: 510 g/L per SCAQMD Test Method 316A
FLASH POINT 4.1 F (-17 C) SETA CC
LOWER EXPLOSION LIMIT 1.8%
UPPER EXPLOSION LIMIT 11.8%

Section 10 -- STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under recommended storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Can form potentially explosive peroxides upon long standing in air. Vapors may form explosive mixture with air.

CONDITIONS TO AVOID: Heat, sparks, open flames, and strong oxidizing, acidic and basic conditions.

MATERIALS TO AVOID: Oxidizers, acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2, HCl and fragmented hydrocarbons.

HAZARDOUS POLYMERIZATION: Will not occur.

Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen. Tetrahydrofuran - The National Toxicology Program has reported that exposures of mice and rats to THF vapor levels up to 1800 ppm 6hr/day, 5 days/week for their lifetime caused an incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health are unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF.

TOXICOLOGY DATA

Ingredient Name

Methyl Ethyl Ketone

Oral-Rat LD50:2737 mg/kg
Inhalation-Rat LC50:23,500 mg/m3/8H

Tetrahydrofuran

Oral-Rat LD50:1650 mg/kg
Inhalation-Rat LC50:21,000 ppm/3H

Cyclohexanone

Oral-Rat LD50:1535 mg/kg
Inhalation-Rat LC50:8000 ppm/4H

Acetone

Oral-Rat LD50: 5800 mg/kg
Inhalation-Rat LC50: 50,100mg/m3

Section 12 -- Ecological Information

ECOLOGICAL DATA

Ingredient Name

Methyl Ethyl Ketone

Food Chain Concentration Potential: None
WATERFOWL TOXICITY: N/A
BOD: 214%
AQUATIC TOXICITY: 5640 mg/l/48 hr/bluegill/TLm/fresh water

Tetrahydrofuran

Food Chain Concentration Potential: None
WATERFOWL TOXICITY: N/A
BOD: N/A
AQUATIC TOXICITY: N/A

Cyclohexanone

Food Chain Concentration Potential: None
WATERFOWL TOXICITY: N/A
BOD: N/A
AQUATIC TOXICITY: N/A

Acetone

Food Chain Concentration Potential: None
WATERFOWL TOXICITY: N/A
BOD: N/A
AQUATIC TOXICITY: LC50/96-hour for fish > 100 mg/l

Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: RCRA classified hazardous waste. Dispose of absorbed materials and liquid waste in approved, controlled incineration facility in accordance with all local, state and federal regulations.

Disposal Method: Incineration

Section 14 -- TRANSPORTATION INFORMATION

DOT: UN1133, Adhesives, Class 3, PG II, ERG#127.

Quarts and less: Consumer Commodity, ORM-D

OCEAN (IMDG): UN1133, Adhesives, Class 3, PG II, EMS-No: F-E, S-D

Quarts and less: Adhesives, Class 3, UN 1133, PG II, Limited Quantities or Ltd Qty

AIR (IATA): UN1133, Adhesives, Class 3, PG II, ERG#127

WHMIS (CANADA): Class B-2

Section 15 -- REGULATORY INFORMATION

REGULATORY DATA

Ingredient Name

Methyl Ethyl Ketone

SARA 313	Yes
TSCA Inventory	Yes
CERCLA RQ	5,000 lb.
RCRA Code	U159

Tetrahydrofuran

SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	1,000 lb.
RCRA Code	U213

Cyclohexanone

SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	5,000 lb.
RCRA Code	U057

Acetone

SARA 313	No
TSCA Inventory	Yes
CERCLA RQ	5,000 lb.
RCRA Code	U002

Section 16 -- OTHER INFORMATION

Text of R phrases mentioned in Section 2

R11 - Highly flammable

R36 - Irritating to eyes

R66 - Repeated exposure may cause skin dryness or cracking

R67 - Vapors may cause drowsiness and dizziness

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further

information: (713) 263-8001