

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** SG 404

**Synonyms:** Solvent-Based Mastic

**Manufacturer/Supplier**

Carlisle HVAC Products  
900 Hensley Lane  
Wylie, TX 75098

**Internet Address:** [www.carlislehvac.com/](http://www.carlislehvac.com/)

**Fax Number:** (972) 442-0076

**Phone Numbers**

**Medical Emergency:**

**CHEMTREC (USA):** (800) 424-9300

**CHEMTREC (International):**

**MSDS Assistance:** (972) 442-6545

**Fax On Demand:** NA

**Technical Assistance:** (888) 229-2199

**Customer Service:** (888) 229-0199

### 2. COMPONENT INFORMATION

Ingredient Name	CAS Number	% wt or % vol
Toluene	108-88-3	10-15
Heptane	142-82-5	20-30
Amorphous Silica	7631-86-9	5.0-8.0
Hydrocarbon Resin	68132-04-7	
Hydrated Alumina	21645-51-2	
Calcium Carbonate	1317-65-3	
Clay	1332-58-7	

**Hazardous Ingredients:**

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Toluene	200 ppm	150 ppm	50 ppm (skin)	150 ppm (skin)	100 ppm	150 ppm	500 ppm
Heptane	400 ppm	500 ppm	none estab.	none estab.	85 ppm	440 ppm	750 ppm
Amorphous Silica	80 mg/m <sup>3</sup> (as dust)	None estab.	10 mg/m <sup>3</sup>	None estab.	6 mg/m <sup>3</sup>	None estab.	3000 mg/m <sup>3</sup>

### 3. HAZARDS IDENTIFICATION

**Emergency and Hazards Overview:**

May cause moderate irritation to eyes. May be harmful if swallowed. Read and understand all health and safety information on the product label and Material Safety Data Sheet before use.

**Ratings**

**Health** 1 **Flammability** 4 **Reactivity** 0

**Primary Entry Routes:** Skin contact, skin absorption, eye contact, inhalation, ingestion.

**Target Organs:**

**Acute Effects**

**Inhalation:** Nose and throat irritation on short term exposure to liquid or vapor.

**Eye:** Irritation on short term exposure to liquid or vapor.

**Skin:** Irritation on short term exposure to liquid or vapor. Solvents may be absorbed through the skin in toxic amounts.

**Ingestion:** Ingestion can cause gastrointestinal irritation.

**Carcinogenicity:** IARC, NTP, and OSHA do not list this product as a carcinogen.

**Medical Conditions Aggravated by Long-Term Exposure:**

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**Chronic Effects:** Overexposure may result in headache, dizziness, fatigue, nausea and loss of consciousness. Chronic exposure may cause reversible kidney and liver injury. Moderate irritation of skin, eyes and mucous membranes of upper respiratory tract on prolonged/repeated contact.

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## 5. FIRST AID MEASURES

**Inhalation:** Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention immediately.

**Eye Contact:** Immediately flush eyes with running water for at least 15 minutes. Get medical attention.

**Skin Contact:** Immediately flush skin with running water and remove contaminated clothing. Wash exposed area with soap and water. Get medical attention.

**Ingestion:** Do not induce vomiting. Get medical attention immediately.

**Note to Physicians:** This product contains organic solvents (Heptane and Toluene).

**Special Precautions/Procedures:** Whenever possible, remove the worker from the source of contamination.

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## 5. FIRES AND EXPLOSION INFORMATION

### Flammable Properties

**Flash Point:** -13.5 deg C

**Test Method:** Closed cup

**Flame extension:** NA

**Test Method:** NA

### Flammable Limits in Air

**Upper Percent:** 7.5% by vol

**Lower Percent:** 1.0 % by vol

**Auto ignition Temperature:** 222.5 deg C

**Test Method:** NA

**NFPA Classification:** H 1 F 4 R 0

**Flammability Classification:** Division 2. Ignition can occur when this product is exposed to heat, sparks, or flame.

**Extinguishing Media:** In case of fire, use dry chemical, carbon dioxide, or foam. Water may not be effective as an extinguishing agent. Water fog or spray may be used to provide a smothering effect on fire and to cool fire-exposed container and surrounding combustibles. Do not use a solid stream of water because it can scatter and spread the fire.

**Unusual Fire or Explosion Hazards:** Extremely flammable. Store and use away from all sources of heat, flame, or sparks. Do not smoke while applying. Vapors are heavier than air and may travel along ground to a distant ignition source and flash back.

**Hazardous Combustion Products:** Toxic gases or vapors, such as carbon monoxide or carbon dioxide, may be released in a fire.

**Fire-Fighting Instructions:** This product contains solvents that are dangerous fire and explosion hazards when exposed to heat or flame. Fire fighters should wear self-contained breathing apparatus and full protective clothing.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

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## 6. ACCIDENTAL RELEASE MEASURES

**Spill /Leak Procedures:** Remove all sources of ignition. Avoid breathing vapors. Use self-contained breathing apparatus in enclosed area. Ventilate area. Contain and remove with inert absorbent materials and non-sparking tools.

### Large Spills

**Containment:** For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

**Cleanup:** Clean-up spill as soon as possible. Collect any excess material with absorbent pads, sand or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal. Comply with all laws and regulations.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

## 7. HANDLING AND STORAGE INFORMATION

**Handling Precautions:** Use away from all sources of heat, flame, or sparks. Do not smoke while using. Handling equipment must be grounded to prevent sparking. Handle with non-sparking tools. Wash with soap and water before eating or drinking. Launder contaminated clothing. **KEEP OUT OF REACH OF CHILDREN.**

**Storage Requirements:** Keep containers cool, dry, and store away from all sources of heat, flame, and sparks. Keep containers tightly closed and store with adequate ventilation. Do not pressurize, cut, weld, or grind the containers or empty containers which may contain residual product and solvent vapors that may ignite explosively.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION

**Engineering Controls:** Do not use in enclosed areas without proper explosion-proof ventilation.

General and local exhaust ventilation must be sufficient to control vapor concentrations and keep the PEL below 100 ppm.

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:**

**Respiratory Protection:** Approved respirator must be used if PEL is 100 ppm or above.

**Protective Clothing/Equipment:** Hycron gloves recommended. Glasses or goggles recommended.

Industrial shoes to protect feet from adhesive contact. Long sleeves, long trousers to protect skin from adhesive contact. Protective skin creams and emollients useful.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b> Gray Mastic	<b>Vapor Pressure:</b> 36.7 mm Hg @ 30°C
<b>Odor:</b> Mild hydrocarbon odor	<b>Vapor Density (air=1):</b> 3.14 -3.45
<b>Physical state:</b> Mastic	<b>Percent Volatile by Weight:</b> 30 - 40
<b>pH:</b> NA	<b>Volatile Organic Content:</b> 395 gpl
<b>Evaporation Rate:</b> 3.7-2.1	<b>Molecular Weight:</b> NA
<b>Boiling Point:</b> 209°F (98.5 deg C)	<b>Average Carbon Number:</b> NA
<b>Melting Point/Freezing Point:</b> -90.5 C	<b>Viscosity @ 77 F:</b> Thixotropic
<b>Specific Gravity:</b> 1.0-1.2	
<b>Pour Point:</b> NA	
<b>Solubility in Water:</b> Negligible	
<b>Octanol / Water Coefficient:</b> Log K <sub>ow</sub> = NA	

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## 10. STABILITY AND REACTIVITY INFORMATION

**Stability:** Stable.

**Polymerization:** Will not occur.

**Chemical Incompatibilities:** Strong oxidizing agents, acids, bases, heat, sparks, and flames.

**Conditions to Avoid:** Heat, sparks, and flames, ignition sources.

**Hazardous Decomposition Products:** Toxic gases or vapors such as carbon monoxide or carbon dioxide, may be released in a fire.

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## 11. TOXICOLOGICAL INFORMATION (will only print available data)

### Toxicity Data:

**Eye Effects:** Irritating

**Acute Inhalation Effects:** Product toxicity has not been determined.  
Following are the component data:

**Skin Effects:** Irritating

TC<sub>50</sub>:

Toluene: Rat > 26,700 ppm 1 hr; Mouse 400 ppm 24 hr

Heptane: Human TCLo: 1000 ppm/6 minutes

**Acute Oral Effects:** Product toxicity has not been determined.  
Following are component data:

LD<sub>50</sub>:

Toluene: Rat 5000 mg/kg

Heptane: Rat, ivn, 222 mg/kg

**Chronic Effects:** May cause skin sensitization in some people.

**Carcinogenicity:** Not listed in IARC or NTP.

**Mutagenicity:** Some evidence in animal exposure to Toluene.

**Teratogenicity:** Some evidence in animal exposure to Toluene.

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## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Not known

**Environmental Fate:** Not known

**Environmental Degradation:** Not known

**Soil Absorption/Mobility:** Not known

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## 13. DISPOSAL INFORMATION

**Regulatory Information:** Consult all regulations (federal, state, provincial, local etc.) or a qualified waste disposal firm when characterizing waste for disposal.

**Waste Disposal Methods:** Recover free liquid. Absorb residue and dispose of according to local, state and Federal EPA regulation. Empty container: may contain explosive vapors. Do Not cut, puncture or weld on or nearby.

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**14. TRANSPORTATION INFORMATION****DOT Transportation Data (49 CFR 172.101):**

<b>Shipping Name:</b> Adhesives, 3, UN1133, II	<b>Packaging Authorizations</b>	<b>Quantity Limitations</b>
<b>Shipping Symbols:</b> Flammable	<b>a) Exceptions:</b> 173.150	<b>a) Passenger, Aircraft, or Railcar:</b> 5L
<b>Hazard Class:</b> 2	<b>b) Non-bulk Packaging:</b> 173.173	<b>b) Cargo Aircraft Only:</b> 60L
<b>ID No.:</b> UN1133	<b>c) Bulk Packaging:</b> 173.242	<b>Vessel Stowage Requirements</b>
<b>Packing Group:</b> II		<b>a) Vessel Stowage:</b> B
<b>Label:</b> red caution label required		<b>b) Other:</b> ---
<b>Special Provisions</b> <b>(172.102):</b> 149, B52, IB2, T4, TP1, TP8		

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**15. REGULATORY INFORMATION****EPA Regulations:****RCRA Hazardous Waste Number (40 CFR 261.33):** Not listed**RCRA Hazardous Waste Classification (40 CFR 261):** Not classified**TSCA (Toxic Substances Control Act) Status:**

TSCA (United States) – The intentional ingredients of this product are listed.

**CERCLA Hazardous Substance RQ – 40 CFR 302.4 (a)**

Component	RQ (lbs)
Toluene	1000

**CERCLA RQ – 40 CFR 302.4 (b)**

Materials with a “listed” RQ may be reportable as an “unlisted hazardous substance”. See 40 CFR 302.5 (b).

**SARA 311/312 Codes:**Immediate (X)    Delayed (X)    Fire (X)    Reactive ( )    Sudden Release of  
Pressure ( )**SARA 313 Components (40 CFR 372.65):**

Section 313 Component(s)	CAS Number	%
Toluene	108-88-3	10 – 15

**SARA EHS (Extremely Hazardous Substance) (40 CFR 355):** Not listed, Threshold Planning  
Quantity (TPQ)**OSHA Regulations:**

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance (29 CFR 1910): None listed

**EPA Accidental Release Prevention (40 CFR 68):** None listed



**State Regulations:**

**California Proposition 65:**

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause reproductive harm:

Toluene

**Delaware Air Quality Management List:**

Chemical Name	DRQ:	State?
Toluene	1000	Must be reported to the DRQ

**Florida Toxic Substance:** The following components are listed as a toxic substance by the state of Florida:

- Toluene
- Heptane
- Amorphous Silica

**Massachusetts Hazardous Substances List:**

Chemical Name	CAS #	Codes
Toluene	108-88-3	2, 4, 5, 6, F7, F8
Heptane	142-82-5	2, 4, 5, 6
Amorphous Silica	7631-86-9	2, 4, 5, F5

**Michigan Critical Materials Registry:**

Chemical Name	CAS #	Report	Class
Toluene	108-88-3	--	--

**Minnesota Hazardous Substance:**

Chemical Name	Codes	Hazards	Carcinogen
Toluene	ANO	skin	No
Heptane	ANO	--	No
Silica	ANOR	--	*T*

**New Jersey RTK Label Information:**

Chemical Name	CAS #	Substance #	DOT #	TPQ
EHS				
Toluene	108-88-3	1866	1294	--

**New York List of Hazardous Substances:**

Chemical Name	RQ – Air	RQ – Land	Note
Toluene	1000	1	none

**Pennsylvania RTK Label Information**

Chemical Name	CAS #	Code
Benzene, Methyl	108-88-3	E
Heptane	142-82-5	--
Silica	7631-86-9	--



**Washington Air Contaminant:**

TWA (ppm):	100 (Toluene)
TWA (mg):	375 (Toluene)
STEL (ppm):	150 (Toluene)
STEL (mg):	560 (Toluene)
Ceiling (ppm):	None listed
Ceiling (mg):	None listed
Skin:	None listed

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**16. OTHER INFORMATION**

**Health and Environmental Label Language**

All ingredients contained in this product are included on the US EPA Toxic Substances Control Act (TSCA) inventory or exempt from listing on the TSCA inventory. All ingredients contained in this product comply with the requirements of the Canadian Environmental Protection Act (CEPA) and are listed on the Domestic Substance List (DSL) or Non-Domestic Substance List (NDSL)

**MSDS Revisions**

**Previous Version Date:** 09/01/08

**Section**

**Old Information:**

**New Information:**

**Prepared By:** R&D Department

**Date:** 01/08/2013

**Disclaimer of Warranty:** The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, CCWI Company must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.