

MATERIAL SAFETY DATA SHEET

Effective Date: 7/31/12

Material Safety Data Sheet

MSDS No: 6082

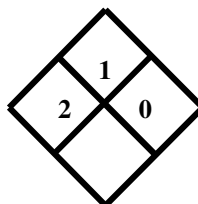
1. PRODUCT IDENTIFICATION

SUPPLIER:

CLOCK SPRING COMPANY L.P.
621 LOCKHAVEN DRIVE
HOUSTON, TX 77073
PHONE: 281-590-8491
EMAIL: MSDS@CLOCKSPRING.COM

MANUFACTURER:

Huntsman Advanced Materials Americas LLC
P.O. Box 4980
The Woodlands, TX 77387
Non-Emergency phone: (800) 257-5547



NFPA RATING

Health:	2
Flammability:	1
Reactivity:	0
Personal Protection:	

HMIS RATING

Trade Name: CS HT 181 FILLER (RenLam 4014)

Chemical Family: Epoxy

Synonyms:

CS HT181 (RP 4014 Resin)

Intended Use or Product Type: Heat resistant laminating resin

IN CASE OF EMERGENCY: CHEMTREC USA: 800-424-9000 INTERNATIONAL: 703-527-3877 [CONTRACT # 5043](#)

2. COMPOSITION / INFORMATION ON INGREDIENTS

O S H A	CAS No.	CHEMICAL IDENTITY	EXPOSURE LIMITS					CARCINOGEN STATUS		
			ACGIH		OSHA		MFR.	IARC	NTP	OSHA
			TWA	STEL	PEL	STEL				
*	1317-65-3	Limestone	10 mg/m3	NE	5 mg/m3	NE	NE	NR	NR	NR
	Common Name: Concentration	Calcium carbonate 10.00 - 30.00 % by wt								
*	14807-96-6	Talc	2 mg/m3	NE	NE	NE	NE	NR	NR	NR
	Common Name: Concentration	Talc 1.00 - 5.00 % by wt								
*	1675-54-3	Oxirane, 2,2'-[(1-Methylethylidene)bis(4,1-Phenyleneoxymethylene)]bis-Diglycidyl ether of bisphenol A	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name: Concentration	 10.00 - 30.00 % by wt								
*	2425-79-8	Oxirane, 2,2'-[1,4-Butanediylbis(Oxymethylene)]bis-Butanediol diglycidyl ether	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name: Concentration	 5.00 - 10.00 % by wt								
*	25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane Bisphenol A diglycidyl ether polymer	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name: Concentration	 10.00 - 30.00 % by wt								

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*	28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether Epoxy Phenol Novolac	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name:									
	Concentration	10.00 - 30.00 % by wt								
*	3101-60-8	Oxirane, [[4-(1,1-dimethylethyl)phenoxy]methyl]-Butylphenyl glycidyl ether	NE	NE	NE	NE	NE	NR	NR	NR
	Common Name:									
	Concentration	1.00 - 5.00 % by wt								

NE = Not Established NR = Not Reviewed * = OSHA Hazardous Ingredient

3. HAZARDS IDENTIFICATION

Emergency Overview: Can cause skin irritation, eye irritation, and allergic skin reaction. May be harmful if absorbed through skin or if swallowed.

Primary Route(s) of Entry: Dermal; heated product may produce inhalable vapors.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

Inhalation: Remove to fresh air. Seek immediate medical attention.

Eyes: Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

Overexposure Effects: Can cause skin irritation, eye irritation, and allergic skin reaction. May be harmful if absorbed through skin or if swallowed.

Medical Conditions Aggravated by Exposure: Skin and eye conditions.

Additional Information: Referral to a physician is recommended if there is any question about the seriousness of any injury.

5. FIRE FIGHTING MEASURES

Flash Point: 300°F (149 °C)
Flash Point Method Used: PMCC
Flammable Limits in Air (Lower - % by volume): Not established
Flammable Limits in Air (Upper - % by volume): Not established

Fire Fighting Extinguishing Media: Carbon dioxide, dry chemical, foam, water.

Fire Fighting Equipment: Use self-contained breathing apparatus.

Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Remove spillage by absorbing in absorbent material.

7. HANDLING AND STORAGE

Signal Word: Warning!

Precautions: Can cause skin irritation, eye irritation, and allergic skin reaction. May be harmful if absorbed through skin or if swallowed. Avoid contact with eyes, skin, and clothing. Avoid tasting or swallowing. Wash thoroughly after handling.

Other Handling Information: Nuisance dust may be generated when sanding or sawing cured material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection: Wear impermeable gloves.

Respiratory Protection: Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

Eye Protection: Wear splash-proof chemical goggles.

Engineering Controls: General mechanical and local exhaust in accordance with ACGIH recommendations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Grey
Odor:	Slight
Physical State:	Filled Liquid
Solubility in Water:	Negligible
Vapor Pressure:	0.0073 mm Hg at 80°C (176 °F)
Specific Gravity:	1.3 - 1.36 (water = 1)
Boiling Point:	Not Determined
Evaporation Rate:	Not Determined
Vapor Density:	Not Determined
VOC:	Negligible
pH:	Not Evaluated
Coefficient of water/oil:	Not Evaluated

10. STABILITY AND REACTIVITY

Conditions to Avoid: Excessive heat for prolonged periods of time.

Stability: Stable.

Incompatibility: Strong oxidizers, acids and bases.

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Hazardous Decomposition Products: Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral Effects (LD50): Component(s) are slightly toxic, 500 - 5000 mg/kg (rat).

Butanediol diglycidyl ether= 1134 mg/kg (rat)

Acute Dermal Toxicity (LD50): Component(s) are slightly toxic, 1000 - 2000 mg/kg (rabbit).

Butanediol diglycidyl ether= 1130 mg/kg (rabbit)

Sensitization: Possible in susceptible individuals.

Carcinogenicity: Based on several dermal studies in mice, IARC had concluded in 1999 that diglycidyl ether of bisphenol A is not classifiable as a human carcinogen (Group 3) and has limited evidence of carcinogenicity in animals.

Skin Irritation: Irritant.

Eye Irritation: Irritant.

Reproduction: For diglycidyl ether of bisphenol A- There were no treatment-related histologic changes noted nor effects on reproductive performance in rats at any oral dose tested.

Teratogenicity: For diglycidyl ether of bisphenol A- No adverse effects on embryonic or fetal development was observed in rabbits after dermal exposure.

Mutagenicity: For diglycidyl ether of bisphenol A- In vitro tests showed mutagenic effects which were not observed with in vivo tests.

Sub-Chronic: Diglycidyl ether of bisphenol A, applied to the skin of rats five times per week for approximately 13 weeks, caused no apparent systemic toxicity with the exception of decreased body weight and body weight gain.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT: Non-Bulk

Proper Shipping Name:

Environmentally hazardous substance, liquid, n.o.s.

Technical Shipping Name (If n.o.s.):

Bisphenol A epoxy resin, epoxyphenol novolac resin

Hazard Class:

9

ID Number:

UN 3082

Packing Group:

PG III

IATA: Non-Bulk

Proper Shipping Name:

Environmentally hazardous substance, liquid, n.o.s.

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Technical Shipping Name (If n.o.s.):	Bisphenol A epoxy resin, epoxyphenol novolac resin
Hazard Class:	9
ID Number:	UN 3082
Packing Group:	PG III
IMDG: Non-Bulk	
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.
Technical Shipping Name (If n.o.s.):	Bisphenol A epoxy resin, epoxyphenol novolac resin
Hazard Class:	9
ID Number:	UN 3082
Packing Group:	PG III
TDG: Non-Bulk	
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.
Technical Shipping Name (If n.o.s.):	Bisphenol A epoxy resin, epoxyphenol novolac resin
Hazard Class:	9
ID Number:	UN 3082
Packing Group:	PG III

15. REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This product is considered to be a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Resource Conservation and Recovery Act (RCRA): Not a hazardous waste under RCRA (40 CFR 261).

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 313 (40 CFR 372).

TSCA Section 8(b) - Inventory Status: All chemical components of this product are in compliance with TSCA inventory requirements.

TSCA Section 12(b) - Export Notification: This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

International Regulations:

Australian Inventory Status: This product contains only chemicals which are currently listed on the Australian Inventory of Chemical Substances.

Canadian Inventory Status: This product contains components which are included on the Domestic Substances List (DSL) and the Non-Domestic Substances List (NDSL).

Canadian WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. D2B

European Inventory Status (EINECS): This product contains only chemicals that are currently listed on the European Inventory of Existing Commercial Chemical Substances (EINECS).

Japanese Inventory Status: This product contains only chemicals currently listed on the Japanese Ministry of International Trade and Industry List of Existing and New Chemical Substances.

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State Regulations:

California Proposition 65: This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

Pennsylvania Right-to-Know: The following is required composition information:

Chemical Name: Oxirane, 2,2'-[(1-Methylethylidene)bis(4,1-Phenyleneoxymethylene)]bis-

Common Name: Diglycidyl ether of bisphenol A

CAS Number: 1675-54-3

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane

Common Name: Bisphenol A diglycidyl ether polymer

CAS Number: 25068-38-6

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Limestone

Common Name: Calcium carbonate

CAS Number: 1317-65-3

Comment: Hazardous Substance

Chemical Name: Phenol, polymer with formaldehyde, glycidyl ether

Common Name: Epoxy Phenol Novolac

CAS Number: 28064-14-4

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Oxirane, 2,2'-[1,4-Butanediylbis(Oxymethylene)]bis-

Common Name: Butanediol diglycidyl ether

CAS Number: 2425-79-8

Comment: Not on Pennsylvania Hazardous Substance List

Chemical Name: Talc

Common Name: Talc

CAS Number: 14807-96-6

Comment: Hazardous Substance

16. OTHER INFORMATION

MSDS No: 6082

Reason Issued: 4/10 update WHMIS, DOT

Approved By: Matt Austin

Title: EHS Chemist

Other Information: DLW (D10020030) [D24]

Disclaimer: The information and recommendations contained herein are based upon tests in controlled laboratory conditions, are believed to be correct, and are provided for the sole purpose of hazard communication as part of Clock Spring's product safety program. This product has not been tested for, and therefore is not recommended or suitable for, uses for which prolonged contact with

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Prepared By: Clock Spring Company L.P.

UPDATED: 7/31/12

SUPERCEDES 4/19/10

From Information Supplied By:

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