MATERIAL SAFETY DATA SHEET

Product Name: Chemical Vulcanizing Cement

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION PRODUCT NAME: **Chemical Vulcanizing Cement** PART NUMBER(S): 14-004, 14-008, 14-032, 14-511, 14-512 GENERAL USE: Chemical or Heat Vulcanization of Tire Repair Materials PRODUCT DESCRIPTION: Liquid with solvent odor that is cloudy or blue in color MANUFACTURER'S NAME: Jan. 1, 2010 DATE PREPARED: 31 Incorporated SUPERSEDES: May 19, 2009 STREET ADDRESS: FOR INFORMATION, CONTACT: 100 Enterprise Drive (740) 498-8324; info@31inc.com ATED CITY, STATE, ZIP, COUNTRY **EMERGENCY TELEPHONE NUMBER:** Newcomerstown, OH 43832 USA CHEM • TEL: (800) 255-3924 or (813) 248-0585 **SECTION 2 - HAZARDOUS INGREDIENTS RISK PHRASES** % Hazard TLV UNITS HAZARDOUS COMPONENTS CAS # (by weight) Symbol (Full Text Section 16) Heptane 80 - 90 142-82-5 400 PPM N/A Methylcyelohexane 0.5 108-87-2 400 PPM N/A Uncured Natural Rubber 10 - 15 N/A **SECTION 3 - HAZARDS IDENTIFICATION** EMERGENCY OVERVIEW Contact with eyes will cause irritation. Contact with skin may cause irritation. ACCUTE EFFECTS OF OVEREXPOSURE: Inhalation: May cause dizziness May cause irritation upon prolonged or repeated contact Skin: Eyes: May cause eye irritation. May cause irritation of gastrointestinal tract. Ingestion: CHRONIC EFFECTS OF OVEREXPOSURE: N/A OTHER HEALTH HAZARDS: N/A SECTION 4 - FIRST AID MEASURES INHALATION: If difficulty breathing, dizziness, or lightheadedness is experienced, remove victim to fresh air. If continued breathing difficulities occur, administer oxygen and seek immediate medical attention. SKIN: Wash with soap and large quantities of water. If irritation persists, seek medical attention. EYES: Flush with large quantities of clean water for at least 15 minutes. Seek medical attention. INGESTION: Do NOT give anything by mouth or induce vomiting. Seek immediate medical attention.

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				HTING M	ASURES	5				
EXTINGUISHING MEDIA:	Foam, CO ₂ , Dry	Chemical, F	ire Fighting A	pparatus						
FIRE FIGHTING PROCEDURES:	S: Use of self contained breathing apparatus is recommended for fire fighters									
UNUSUAL FIRE AND	Extremely flamm	able and ma	ay be ignited b	y heat, sparks	, flame, or othe	er source of igni	tion.			
EXPLOSION HAZARDS:	Extremely flammable and may be ignited by heat, sparks, flame, or other source of ignition. Closed containers can explode due to buildup of pressure when exposed to extreme heat.									
	SECTION 6	<mark>) - ACC</mark> I	DENTAL	RELEAS	E MEASU	JRES				
STEPS TO BE TAKEN IN CASE N COMBUSTIBLE - Evacuate and into approved absorbent; place regulations; Do NOT wash to s	d ventilate area; r e material into app	emove all so roved conta	ources of spar iners for dispo	osal following a	Il Local, State,	, and Federal	bsorb			
	SECT	ION 7 - I	HANDLIN	IG AND S	TORAGE					
PRECAUTIONS TO BE TAKEN IN This material is combustible. It explosive mixtures in air. All so Avoid inhaling concentrated fur	should be stored ources of ignition s	in tightly clo	sed container			• •				
SECTIO	ON 8 - EXPC	SURE (CONTRO	LS / PER	SONAL F	PROTECTI	ON			
HAZARDOUS COMPONENTS		NIO	-			ACC				
Heptane	TWA ppm T\	NA mg/m3	STEL ppm	STEL mg/m3	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3		
Uncured Natural Rubber										
PERSONAL PROTECTION:										
Respiratory Protection:	Use NIOSH appr Refer to 29 CFR) for complete	regulations.				
Ventilation:	Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations. Mechanical ventilation to keep product within specified TLV ranges.									
Protective Gloves:	Imperable gloves advised.									
Eye Protection:	Protective eyeglasses or chemical safety goggles.									
-	Refer to 29 CFR 1910.133 or European Standard EN 166.									
Other:	Work clothes									
Work / Hygienic Practices:	Work / Hygienic Practices: Practice safe workplace habits. Minimize body contact with this product.									
SI	ECTION 9 -	PHYSIC	AL AND	CHEMIC/	AL PROP	ERTIES				
APPEARANCE AND ODOR:				VAPOR PRES	SURE AT 20	°C:				
Liquid with solvent odor that is	cloudy or blue in c	olor		N/A						
BOILING POINT / RANGE:		SPECIFIC GRAVITY:								
200° - 209° F (93.3° - 98.3°C)		0.77 SOLUBILITY IN WATER (% by weight):								
FREEZING POINT: N/A				N/A	IN WATER (%	by weight):				
FLASH POINT (Test Methods):				V.O.C.:						
32°F, 0°C (TCC)				75% - 85%						
FLAMMABLE LIMITS IN AIR (% by volume): Lower: 1.0 Upper: 7.0				VAPOR DENSITY: N/A						
EVAPORATION RATE:				11/17						
4.50										

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SECTION 10 - STABILITY AND REACTIVITY UNSTABLE: STABILITY: CONDITIONS TO AVOID: N/A STABLE: XXX INCOMPATIBILITY (Materials to Avoid): Strong acids or bases and selected amines. Thermal decomposition in the presence of air may yield carbon monoxide and/or HAZARDOUS COMBUSTION or DECOMPOSITION PRODUCTS: carbon dioxide. MAY OCCUR: HAZARDOUS POLYMERIZATION: CONDITIONS TO AVOID: N/A WILL NOT OCCUR: XXX SECTION 11 - TOXICOLOGICAL INFORMATION CAS # LD50 OF INGREDIENT LC50 OF INGREDIENT HAZARDOUS COMPONENTS EINECS # (Specify Species and Route) (Specify Species) 142-82-5 Heptane 108-87-2 Methylcyelohexane N/A Uncured Natural Rubber **SECTION 12 - ECOLOGICAL INFORMATION** No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product, it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant. **SECTION 13 - DISPOSAL CONSIDERATIONS** WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. This product may produce hazardous vapors or fumes in a closed disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or federal Environmental Protection Agency (EPA) before disposing of any chemicals. Do NOT flush to sanitary sewer or waterway. **SECTION 14 - TRANSPORT INFORMATION** PROPER SHIPPING NAME: HEPTANES DOT HAZARD CLASS / Pack Group: 3 IATA HAZARD CLASS/Pack Group: 3 PG II PG II **REFERENCE:** IMDG HAZARD CLASS: 3 PG II UN / NA IDENTIFICATION NUMBER: UN1206 RID/ADR Dangerous Goods Code: LABEL: FLAMMABLE UN TDG Class / Pack Group: HAZARD SYMBOLS: Note: Transportation information if for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific

container sizes, packaging materials, and methods of shipping.

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SECT	ION 15 - REG	ULATORY	INFOR	MATION						
TSCA (USA - Toxic Substance Control Act)										
All components of this product are listed on the U.S. Toxic Substance Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemtpion has been granted in accordance with 40 CFR 723.50.										
SARA TITTLE III (USA - Superfund Amendment 311/312 Hazard Categories: Immediate health	s and Reauthorization	n Act)								
313 Reportable Ingredients: None										
CERCLA (USA - Comprehensive Response Con None	pensation and Liabili	ty Act)								
CPR (Canadian Controlled Products Regulations This product has been classified in accordanc all the information required by the Controlled	ce with the hazard crite		olled Produ	cts Regulations and	d the MSDS contains					
IDL (Canadian Ingredient Disclosure List) Components of this product identified by CAS	number are listed on	the Canadian Ir	ngredient Di	sclosure List are sh	nown in Section 2.					
DSL / NDSL (Canadian domestic Substances Lis Components of this product identified by CAS document. Only ingredients classified as "ha	number are listed on	the DSL or NDS	-		d in Section 2 of this					
EINECS (European Inventory of Existing Commo Components of this product identified by CAS			ory of Exist	ing Commercial Ch	emical Substances.					
RISK PHRASES:	SYMBOL(S) REQUI	RED FOR LABE	:L:	-	PHRASES:					
R36/38 Irritating to eyes and skin				S2 Keep out of reach of children						
	Flammable		Irritant		case of fire and/or explosion on the breathe fumes.					
<u> </u>										
	ECTION 16 - O	I HER INF	<u>URIVIA I</u>							
NOTES & FULL R-PHRASE TEXT: R36/38 Irritating to eyes and skin										
HMIS HAZARD RATINGS:	HEALTH	1								
F		3								
PERSONAL PROTECTIVE		0 A								
REVISION SUMMARY:		<u>n</u>								
MSDS PREPARED BY: Charles Muh	Charles Muhs, Technical Advisor									
31 Incorporated										
100 Enterpris					uck@31inc.com					
The information contained herein is based on da	own, OH 43832 ta considered accurat									
accuracy of this data or the results to be obtaine	d from the use thereof	f. Vendor assun	nes no respo	onsibility for injury t	o vendee or third					
persons proximately caused by the materials if re Additionally, vendor assumes no responsibility for										
even if reasonable safety procedures are followe										