MSDS

(posted 3/01/2012)

The attached MSDS sheets apply to the following product(s). Please file accordingly.

VENDOR: **RED DEVIL C255**

STOCK#	MFG# DESCRIPTION
G80-186	0909 TRPL EXPNDNG FM 12OZ
G80-187	0912 TRPL EXPNDNG FM 20OZ

Material Safety Data Sheet

0909, 0912 Triple Expanding Foam & 0913, 0920 Minimal Expanding Foam

MSDS No. 0113 Rev. 5

Emergency Phone No.
(918)825-5744

SECTION 1 – PRODUCT NAME & MANUFACTURER INFORMATION

PRODUCT NAME	Foam & Fill Minimal & Triple Expanding Polyurethane Foams – Aerosol Cans
MANUFACTURER'S NAME & TELEPHONE NUMBER	Red Devil, Inc.
STREET ADDRESS	4175 Webb Street
CITY / STATE / ZIP	Pryor, Oklahoma 74361

SECTION 2 – COMPOSITION / HAZARDOUS INGREDIENTS

SECTION 2 – COMPOSITION / HAZARDOUS INGREDIENTS	%	LD50	LC50	UNITS
PRODUCT CONSISTS OF:				
Liquefied Petroleum Gas Blend (mixture)	10 to 30	NA	NA	
4,4 – Diphenylmethane Diisocyanate (MDI) (101-68-8)	5 to 10	NA	NA	
Higher Oligomers of MDI (Polymeric MDI) (9016-87-9)	5 to 10	NA	NA	
Urethane Pre-polymer Blend (Non-Hazardous Proprietary Blend) (mixture)	60 to 100	NA	NA	
Non-hazardous ingredients*	60 to 100	NA	NA	
*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). Calculated VOC: < 20%/wt. CARB Compliance: Exempt. Prop 65 Ingredients: None.				

SECTION 3 – HAZARDS IDENTIFICATION

PRIMARY ROUTE(S) OF ENTRY	☒ Skin Contact ☒ Skin Absorption ☒ Eye Contact ☒ Inhalation ☒ Ingestion
EMERGENCY OVERVIEW	Physical Hazards: Danger! Extremely flammable. Foam has strong adhesive-like characteristics & will adhere aggressively to skin & other surfaces. Primary adverse health effects are related to Polymeric Isocyanate (MDI) & to a lesser degree, the Liquefied Petroleum Gas.
EFFECTS OF OVEREXPOSURE	Inhalation: May irritate mucous membranes. Extensive overexposure can lead to respiratory symptoms such as pulmonary edema. Overexposure to liquefied petroleum gas may cause lightheadedness or headaches. Eyes: May be irritating to eyes. Contact can cause physical damage. Skin: May cause irritation, redness & swelling. Prolonged or repeated exposure may result in sensitization. Ingestion: May cause irritation of mucous membranes in mouth & digestive tract.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE	None known.

SECTION 4 – FIRST AID MEASURES

SKIN CONTACT	Use rag to remove excess foam. Remove contaminated clothing. Use of a solvent such as Acetone or Mineral Spirits may help remove uncured foam from clothing & other surfaces (avoid eye contact). Cured foam may be physically removed by persistent washing w/ soap & water. If irritation develops, use mild skin cream. If irritation persists, seek medical attention.
EYE CONTACT	Flush w/ clean water for @ least 15 minutes & seek medical attention.
INHALATION	If breathing difficulty experienced, move to fresh air. If necessary, provide oxygen or artificial respiration by trained personnel & seek medical attention.
INGESTION	Drink 1 to 3 glasses of water & seek medical attention. Never give anything orally to an unconscious person.

SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABLE	☒ Yes ☐ No		
EXTINGUISHING MEDIA	Dry chemical, carbon dioxide, Halon 1211, chemical foam or water spray. Water contamination will produce carbon dioxide.		
FLASHPOINT (°F) & METHOD	- 156F, estimated based on liquefied petroleum gas	UPPER EXPLOSIVE LIMIT (% BY VOLUME)	NE
LOWER EXPLOSIVE LIMIT (% BY VOLUME)	NE	AUTOIGNITION TEMPERTURE (°F)	NE
UNUSUAL FIRE & EXPLOSION HAZARDS	High temperature will raise pressure in containers, which may lead to rupturing. Contents could be sensitive to mechanical impact or static discharge. Vapors released during & immediately after dispensing may ignite explosively if proper ventilation is not employed.		
SPECIAL FIREFIGHTING PROCEDURES	Cured foam is organic & therefore will burn in the presence of sufficient heat, oxygen & an ignition source. Hazards associated w/ burning foam are similar to burning of other organic materials (wood, paper, cotton, etc) & precautions against exposure should be taken accordingly.		

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PROCEDURES	PPE should include impervious gloves, protective eye wear & suitable protective clothing. Uncured foam is very sticky; carefully remove by scraping up, then immediately remove residue w/ a rag & solvent such as polyurethane cleaner, mineral spirits or acetone (nail polish remover). Once cured, product can only be removed physically by scraping, buffing, etc.

SECTION 7 – HANDLING & STORAGE

HANDLING PROCEDURES & EQUIPMENT	Protect containers from physical abuse.
STORAGE REQUIREMENTS	Store in a cool, dry place. Ideal storage temperature is 60 to 80F. Storage above 90F will shorten shelf life. Storage below 55F may affect foam quality if not warmed before using. Protect from freezin

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY	Provide adequate ventilation. If vapor levels are expected to exceed guidelines, use NIOSH approved positive pressure supplied air respirator.
EYEWEAR	Protective eye wear.
CLOTHING / GLOVES	Impervious gloves & suitable work clothes.
HYGENIC PRACTICES	Exercise good personal hygiene, wash thoroughly after each use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Viscous liquid – foams w/ application	ODOR & APPEARANCE	Slight hydrocarbon odor during application/curing.
SPECIFIC GRAVITY	Approximately 1.1	VAPOR DENSITY (AIR=1)	NE
EVAPORATION RATE	NA	BOILING RANGE (°F)	NE
pH	NE	SOLUBILITY IN WATER	Insoluble; reacts slowly w/ water during cure, liberating traces of CO2.
VAPOR PRESSURE (MM Hg)	In can > 50 psig/345 kPa; after release from can vapor pressure very low.	%/WT VOLATILE (TNV)	NE

SECTION 10 – STABILITY AND REACTIVITY

STABILITY	☒ Yes ☐ No Stable w/ storage & handling as directed.
INCOMPATABILITY	☒ Yes ☐ No Alcohols, strong bases or amines & metal compounds (small particle metal catalysts).
CONDITIONS TO AVOID	Temperatures above 120F.
HAZARDOUS POLYMERIZATION/HAZARDOUS DECOMPOSITION PRODUCTS	Toxic decomposition by-products: CO, CO2, NO & HCN.

SECTION 11 – TOXICOLOGICAL INFORMATION / CARCINOGENICITY

ACGIH	Not listed as a carcinogen.
OSHA	Not listed as a carcinogen.
IARC	Not listed as a carcinogen.
NTP	Not listed as a carcinogen.
DATA WITH POSSIBLE RELEVANCE TO HUMANS	NE

SECTION 12 – ECOLOGICAL INFORMATION

AQUATIC TOXICITY	NE

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL **EPA WASTE CODE IF DISCARDED (40CFR Sec.261)**	Dispose of plastic waste (foam plastic) in accordance w/ Local, State & Federal requirements. Before disposing of containers, relieve remaining foam & pressure. Allow product to fully cure before disposing. Never discard in a liquid state.

SECTION 14 – TRANSPORT INFORMATION

SPECIAL SHIPPING INFORMATION	Containers 1 liter or less: Ground: Consumer Commodity ORM-D (On shipper carton), Consumer Commodity Polyurethane Foam Sealant HC (On shipping document) Air: UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label), Water: UN1950 Aerosols "LTD QTY" 2. Note: Emergency Response Guide Numbers – Consumer Commodity #171, for Aerosols & Compressed Gas #126. ECCN Number: EAR99.

SECTION 15 – REGULATORY INFORMATION

CERCLA – SARA HAZARD CATEGORY	SARA Title III: Diphenylmethane Diisocyanate (101-68-8)	**U.S. STATE REGS**	See Section 16.
SARA 313	NE	**TSCA & DSL**	All ingredients listed on TSCA Inventory as well as Canadian Domestic Substances List.

SECTION 16 – OTHER INFORMATION / SPECIAL PRECAUTIONS / LEGEND

NFPA: Fire: 2, Health: 2, Reactivity: 1. HMIS: Flammability: 2, Health: 2, Reactivity: 1. Product is a liquid urethane prepolymer mixture that is packaged under pressure (Flammable Compressed Gas). Containers should not be heated above 120F, to avoid excessive pressure build-up. None of the compounds in this product are listed by IARC, NTP, OSHA or ACGIH as a carcinogen. Prop. 65: Based on information currently available, product is not known to contain detectable amounts of any chemicals currently listed under California Proposition 65. ECCN Number: EAR99.

LEGEND: NA – Not Applicable, NE – Not Established, UN – Unavailable, VOC – Volatile Organic Compound, PEL – Permissible Exposure Limit, TLV – Threshold Limit Value, STEL – Short Term Exposure Limit, MSDS – Material Safety Data Sheet, ACGIH – American Conference of Governmental Industrial Hygienists, SARA – Superfund Amendments & Reauthorization Act of 1986, OSHA – Occupational Safety & Health Administration, HMIS – Hazardous Materials Identification System, NTP – National Toxicology Program, CEIL – Ceiling Exposure Limit, CASRN (CAS Number) – Chemical Abstracts Service Registry Number, TSCA – Toxic Substances Control Act, ECCN Number – Export Control Classification Number.

Reviewed By	Larry Brandon	VP Technology & GM	January 26, 2010
	NAME	TITLE	DATE

The information contained herein has been developed based upon currently available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse.