Safety Data Sheet

RED SPOT
PAINT & VARNISH COMPANY, INC.

1. Identification

Product Name: URETHANE HARDNER

Product Information: LE9425B **Revision Date:** 10/05/2017

Supplier: Red Spot Paint & Varnish Co., Inc.
1107 E. Louisiana St.
Evansville, IN 47711 **Supersedes Date:** 06/05/2017

Preparer: EHS@redspot.com

24 Hour Emergency: 1-812-428-9100 **Outside U.S. and Canada:**

CHEMTREC: 1-800-424-9300 **CHEMTREC:** 703-527-3887

Note: CHEMTREC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

2. Hazards Identification

GHS Classification

Flam. Liq. 3, STOT SE 3 NE

Symbol(s) of Product



Signal Word

Warning

GHS HAZARD STATEMENTS

Flammable liquid and vapour.

May cause drowsiness or dizziness.

GHS LABEL PRECAUTIONARY STATEMENTS

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Call a POISON CENTER or doctor/physician if you feel unwell.

Store in a well-ventilated place. Keep container tightly closed.

GHS SDS PRECAUTIONARY STATEMENTS

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/…/ equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
BUTYL ACETATE	123-86-4	50-75	GHS02-GHS07	H226-336
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	822-06-0	0.1-1.0	GHS06-GHS08	H302-311-315-317-319-330-334-335

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures



FIRST AID - INHALATION: If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe. This product is a known pulmonary sensitizer. Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material must be removed from any further exposure to any isocyanate.

FIRST AID - SKIN CONTACT: In case of contact, wash skin immediately with soap and water. If rash, irritation or burns develop, consult a physician. This product is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.

FIRST AID - EYE CONTACT: If material gets into eyes, flush with water immediately for 15 minutes. Consult a physician.

FIRST AID - INGESTION: Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Have the victim drink 8 to 10 ounces (240 - 300 ml) of water to dilute the material in the stomach. If vomiting occurs naturally, have the victim lean forward to reduce the risk of aspiration. Consult a physician immediately.

5. Fire-fighting Measures

Flash Point, °C: 25 (77°F) **Explosive Limits, %:** 1.7 - 7.6

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may burst if exposed to extreme heat or fire. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Toxic gases may form when product burns. Flammable liquid. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back. This material may release toxic isocyanate vapors if heated.

SPECIAL FIREFIGHTING PROCEDURES: The use of self-contained breathing apparatus is recommended for fire fighters. Water spray may be useful in minimizing vapors and cooling exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not use water stream on burning liquid. Water mist may be used to cool closed containers.

EXTINGUISHING MEDIA: Alcohol Foam, Carbon Dioxide, Dry Chemical, Foam

6. Accidental Release Measures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Prevent product from entering drains. Remove all sources of ignition (flames, hot surfaces and electrical, static, or frictional spark). Avoid breathing vapors. Ventilate area. Remove with inert absorbent and non-sparking tools. Dispose of material in accordance with all federal, state and local regulations. Only trained personnel wearing protective equipment should handle spill cleanup. Avoid personal contact.

7. Handling and Storage



HANDLING: Handle in accordance with good industrial hygiene and safety practice. Keep away from food and drink. Keep out of reach of children. Open container carefully as content may be under pressure. Flammable liquid. Avoid heat, sparks and open flames. Hazardous residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning. Use in well ventilated area. To reduce potential for static discharge, bond and ground containers when transferring material. Keep away from open flames, hot surfaces and sources of ignition.

STORAGE: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH TLV STEL	OSHA PEL-TWA	OSHA PEL-CEILING	Unit
BUTYL ACETATE	150	200	150	N.E.	ppm
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	0.03	-	0.03	N.E.	mg/m3

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: When concentrations exceed the exposure limits specified, use of a NIOSH approved full facepiece organic vapor and dust/mist cartridge respirator is recommended. Where the protection factor may be exceeded, use of a full facepiece supplied air respirator or Self Contained Breathing Apparatus (SCBA) may be necessary. A respirator that is recommended or approved for use in isocyanate containing environments (air purifying or fresh air supplied) may be necessary. Consider type of application and environmental concentration. Observe OSHA regulation for respirator use (23 CFR 1910.134).



SKIN PROTECTION: Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.



EYE PROTECTION: Wear chemical goggles and faceshield (if not wearing a full facepiece respirator).



OTHER PROTECTIVE EQUIPMENT: Flame retardant antistatic protective clothing. Safety shower and eyewash station should be located in immediate work area.



HYGIENIC PRACTICES: It is good practice in industrial hygiene to avoid contact with solvents by using appropriate protective measures whenever possible. Wash hands and face before breaks and immediately after handling the product. Contaminated clothing should be changed and washed before reuse. Eating, drinking and smoking in immediate work area should be prohibited. Good industrial hygiene practice dictates that when isocyanate based coatings are spray applied, some form of respiratory protection should be worn. During the spray application of organic solvent containing coating systems, the use of a positive pressure supplied air respirator is mandatory when the airborne isocyanate concentrations are not known, or the airborne isocyanate monomer concentrations exceed 0.05 ppm (10 times the TLV) or spraying is performed in a confined space or in an area limited ventilation.

9. Physical and Chemical Properties

Freeze Point, °C:	No Information	**Boiling Range, °C:**	122 (252 °F)
Explosive Limits, %:	1.7 - 7.6	**Solubility in Water:**	0.4
Flash Point, °C:	25 (77°F)	**Vapor Pressure, mmHg:**	12.15
VOC Content, lb/gal:	4.770 (567.63 gr/L)	**Evaporation Rate:**	1.00
VOC - Exempt Solvent, lb/gal:	4.770 (567.65 gr/L)	**Density, g/cm3:**	0.967
Volume Solids, %:	35.0662	**Physical State:**	Liquid

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

STABILITY: Stable under normal conditions. Polymerization may occur if in contact with moisture or other materials which react with isocyanates. May occur at temperatures over 400F (204C).

CONDITIONS TO AVOID: Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Contact with oxidizing agents, acid, alkalies, polymerization initiators, heat, sunlight, x-ray or ultraviolet radiation. Do not store above 120°F (48.8°C). Humid air and/or water may produce carbon dioxide that can pressurize
the container.

INCOMPATIBILITY: Keep away from strong oxidizing agents, heat and open flames. May React violently in contact with acids, amines, driers, polymerization accelerators and easily oxidized materials.

HAZARDOUS DECOMPOSITION PRODUCTS: May generate toxic or irritating combustion products. May generate carbon

monoxide gas.

HAZARDOUS POLYMERIZATION: Will not occur

11. Toxicological Information



Practical Experiences

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. These symptoms, which include: chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure, Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air or other irritants. This increased lung sensitivity can persist for weeks and in sever cases for years. Chronic over exposure to isocyanate has also been reported to cause lung damage, including decrease in lung function, which may be permanent. Sensitization may be either temporary or permanent. Chronic exposure to organic solvents has been associated with various neurotoxic effects including permanent brain and nervous system damage. Symptoms include: loss of memory, loss of intellectual ability and loss of coordination.

EFFECT OF OVEREXPOSURE - EYE CONTACT: This product is a severe eye irritant. Direct contact with the liquid or exposure to its vapors or mists may cause burning, tearing, redness and swelling.

EFFECT OF OVEREXPOSURE - INGESTION: This product may cause irritation and possible corrosive action in the mouth, stomach tissue, and digestive tract. Aspiration hazard: this material can enter the lungs during swallowing or vomiting and cause lung inflammation and damage. Harmful if swallowed.

EFFECT OF OVEREXPOSURE - INHALATION: Prolonged, repeated or high exposures may cause central nervous system depression leading to headaches, nausea, drowsiness, dizziness, and possibly narcosis. In extreme cases, may cause loss of consciousness. Isocyanate vapors or mist at concentration above the TLV can irritate (burning sensation) the mucous membranes in the respiratory track (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with a pre-existing, nonspecific bronchial hyperactivity can respond to concentrations below the TLV may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in the lungs, with flu-like symptoms (e.g., fever chills) has also been reported. Solvent vapors may be irritating to the eyes, nose and throat. Symptoms or irritation may include: redness, burning, and itching of the eyes, dryness of the throat and tightness of the chest. Other possible symptoms of over exposure include: headache nausea, narcosis, fatigue, and loss of appetite.

EFFECT OF OVEREXPOSURE - SKIN CONTACT: Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Isocyanate react with skin protein and moisture that can cause irritation. Symptoms of skin irritation may be reddening, swelling, rash, scaling, or blistering. Some person may develop skin sensitization from skin contact. Cured material is difficult to remove. Repeated or prolonged skin contact with solvents can result in dry, defatted and cracked skin causing increased susceptibility to infection. In addition, skin irritation (i.e. redness, swelling), which may develop into dermatitis, may occur from skin contact. Solvents can penetrate the skin and may cause systemic effects similar to those identified under acute inhalation symptoms.

CARCINOGENICITY: No Information

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Contact

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
123-86-4	BUTYL ACETATE	10768 mg/kg Rat	>17600 mg/kg Rabbit	>21 mg/l Rat
822-06-0	HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	738 mg/kg Rat	593 mg/kg Rabbit	0.06 mg/L Rat

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Do not contaminate ponds, waterways or ditches with chemical or used container.

13. Disposal Information



Product

DISPOSAL INFORMATION: Dispose of material in accordance with applicable federal, state and local regulations.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Prevent product from entering drains. Remove all sources of ignition (flames, hot surfaces and electrical, static, or frictional spark). Avoid breathing vapors. Ventilate area. Remove with inert absorbent and non-sparking tools. Dispose of material in accordance with all federal, state and local regulations. Only trained personnel wearing protective equipment should handle spill cleanup. Avoid personal contact.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

DOT Proper Shipping Name:	Flammable Liquid, N.O.S.		
DOT Technical Name:	Butyl Acetate		
DOT Hazard Class:	3	**Packing Group:**	III
DOT UN/NA Number:	UN1993	**Resp. Guide Page:**	128

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	822-06-0

TOXIC SUBSTANCES CONTROL ACT:

All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(B) components exist in this product.

U.S. State Regulations:

NEW JERSEY RIGHT-TO-KNOW:

The following materials are non-hazardous, but are among the top five components in this product.

Chemical Name	CAS-No.
HOMOPOLYMER OF HDI	28182-81-2

PENNSYLVANIA RIGHT-TO-KNOW

The following non-hazardous ingredients are present in the product at greater than 3%.

Chemical Name	CAS-No.
HOMOPOLYMER OF HDI	28182-81-2

CALIFORNIA PROPOSITION 65 CARCINOGENS

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

No Proposition 65 Carcinogens exist in this product.

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

No Proposition 65 Reproductive Toxins exist in this product.

International Regulations: As follows -

CANADIAN WHMIS:

This SDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

WHMIS Class: B2

16. Other Information

HMIS Ratings:

Health:	1	**Flammability:**	3	**Reactivity:**	1	**Personal Protection:**	H

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS02



GHS06



GHS07



GHS08



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Disclaimer:

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