



GARLAND INDUSTRIES

Material Safety Data Sheet (MSDS)

Revised 2/11

THE GARLAND COMPANY, INC.
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VOC Compliant

Contact Adhesive

CHEMICAL FAMILY: Polyurethane

Product Name: Dura Walk VS System Part A

Product Code: 2523-10

TRANSPORTATION EMERGENCY ASSISTANCE / CALL CHEMTREC / 1-800-762-8225

HMIS HAZARD RATINGS

H:2 F:3 R:0 PP:I

DEGREE OF HAZARD: 4=EXTREME 3=HIGH 2=MODERATE 1=SLIGHT 0=INSIGNIFICANT

SECTION III - PHYSICAL DATA

BOILING RANGE: 230-233° F

VAPOR DENSITY (air=1): Heavier

% VOLATILE BY VOLUME: 17.6 %

WEIGHT PER GALLON: 8.45 lbs

EVAPORATION RATE (ether=1): Slower

VAPOR PRESSURE: (mm Hg @ 20°C/68°F)

Toluene: 22

Toluene diisocyanate: <0.01

Xylene: 6

VOC: 221 grams/L (Parts A & B comb.)

SECTION IV - FIRE & EXPLOSION HAZARD DATA

FLASH POINT: 42° F. (TCC)

EXTINGUISHING MEDIA: Foam, CO2, dry chemical or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters must wear self contained breathing apparatus and full protective clothing. Cool containers with water fog. Do not spray pool fires directly; a solid stream of water directed into hot burning liquid can cause frothing. Boilover may occur when temperature of material approaches boiling point of solvent.

UNUSUAL FIRE & EXPLOSION HAZARD: Spills or vapor leaks readily form flammable mixtures at or above the flash point. Contamination of this product with water will generate carbon dioxide gas with possible build-up of pressure in confined spaces. It is unlikely that this product will

explode due to mechanical impact but fire or explosion may occur from static accumulation and discharge.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: Inhalation of high concentrations can produce central nervous system depression. Skin contact can cause severe irritation, possible burns, defatting and dermatitis. Eye contact causes severe irritation, redness, tearing and blurred vision.

WARNING!: This product contains toluene and TDI, chemicals known to the state of California to cause cancer, birth defects and other reproductive harm..

EMERGENCY & FIRST AID: If overcome by vapors, remove to fresh air and if breathing has stopped, give artificial respiration.
Eye contact: Flush immediately with water and call a physician as soon as possible.
Skin contact: Remove excess material before washing with rubbing alcohol, soap and water. Remove contaminated clothing.
Ingestion: See a physician as soon as possible.

PRIMARY ROUTES OF ENTRY: Dermal or inhalation most likely.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: Repeated exposure can cause allergic reaction with development of occupational asthma. Long term exposure to low vapor concentrations may cause chronically progressive pulmonary disease. Repeated skin contact can result in sensitization.

SECTION VI - REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: Heat, sparks, open flame and water contamination.

INCOMPATIBILITY: Water, alcohols, liquid chlorine, concentrated oxygen, NaOH, amines, alkaline materials and organometallic compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Burning may produce nitrogen oxides, hydrogen cyanide, carbon monoxide and/or carbon dioxide.

HAZARDOUS POLYMERIZATION: Reacts slowly with water to produce CO2 gas.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. In enclosed areas, cleanup personnel should wear self contained breathing apparatus. Cover spills with sawdust, vermiculite, or other absorbent material. Add an equal volume of a 6% ammonia solution in water and allow to react for 10 minutes. Collect into open containers and add more solution. Cover loosely to vent carbon dioxide gas generated.

WASTE DISPOSAL METHOD: Dispose in accordance with local, state, and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use self-contained or supplied air breathing apparatus in areas where the isocyanate concentrations are above the PEL or when the material is being heated, spray applied or applied in poorly ventilated areas. An air-purifying respirator may be appropriate under specified conditions.

VENTILATION (Local/Mechanical): Explosion proof mechanical equipment capable of keeping vapor concentration below the PEL.

PROTECTIVE GLOVES: Chemical resistant gloves. Nitrile recommended.

EYE PROTECTION: Safety goggles or face shield.

OTHER PROTECTIVE EQUIPMENT: Eye bath & safety shower should be available.

SECTION IX - SPECIAL PRECAUTIONS & TOXICOLOGICAL PROPERTIES

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed and store in a cool dry place with adequate explosion proof ventilation. Keep away from heat, sparks, open flame and moisture. Open containers should be blanketed with dry nitrogen before resealing if there is no moisture contamination. If water contamination is suspected, do not reseal. Ground equipment to prevent accumulation of static charge.

TOXICOLOGICAL PROPERTIES: This product may contain trace amounts of Toluene diisocyanate monomer (TDI). The National Toxicological Program reported that when TDI monomer was introduced into a rat's stomach there was an increase in tumors over non-exposed rats. Inhalation studies conducted by Hazelton Labs did not show TDI to be carcinogenic to rats and mice.

SECTION X - TRANSPORT INFORMATION

SHIPPING NAME: PAINT, 3, UN1263, PGII
PAINT, 3, UN1263, PGII, LTD.QTY.

GROUND: For standard ground shipping see required labels and markings.
Package in 1A2 metal pails. An outer box is not required

Exceptions:

(173.150) Limited Quantities: (Labels & Placards not required)

Inner packaging not over .3 gal each packed in a strong outer packaging, max package weight 66 lbs.

(173.173) Paint, paint related materials, adhesives, inks and resins:

Authorized combination packaging: Metal receptacle in a 4G box.

Authorized single packaging: 1A1 or 1A2 pail or drum

AIR (CARGO ONLY): Max 15.8 gal in a 1A1 tight head pail or
Max 2.64 gal per can in a 4G box max 15.8 gal per package
Packaging Instructions - 307

AIR (PASSENGER & CARGO): Max 1.3 gal per package
Max 1.3 gal per can in a 4G box
No single packaging allowed
Packaging Instructions - 305
Ltd.Qty.: (Labels required)
Max 16.9 oz per container
Max 33.8 oz per package
Max 66 lbs per package

AIR (UPS): Same as passenger

OCEAN: Max 181 lbs per package
Max 10.5 gal per metal container or 7.9 gal per plastic container in a
4G box or a 1H1 or 1H2 plastic pail or a 1A1 or 1A2 metal pail.

MISC: ERG# 128
NMFC: 149980.2

REQUIRED LABELS & MARKINGS (AIR, OCEAN AND STANDARD GROUND)

Preparation Date 02-Feb-2009
Revision Date 23-Feb-2011
Revision Summary Verbiage Updated

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.



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Ph: 011 44 1452 330 646
Fax: 011 44 1452 330 657 (outside UK)

VOC Compliant

Contact Adhesive

CHEMICAL FAMILY: Polyurethane

Product Name: Dura Walk VS System Part B**Product Code: 2523-10**

TRANSPORTATION EMERGENCY ASSISTANCE 1-800-762-8225

HMIS HAZARD RATINGS

H:2 F:3 R:0 PP:I

DEGREE OF HAZARD: 4=EXTREME 3=HIGH 2=MODERATE 1=SLIGHT 0=INSIGNIFICANT

SECTION II - HAZARDOUS SUBSTANCES

	% BY WT	OSHA PEL	ACGIH TLV
Methyl ethyl ketone ⁽¹⁾ ; CAS# 78-93-3 *	2.6	200ppm	200ppm
Xylene ⁽¹⁾ ;CAS# 1330-20-7 *	11.8	100ppm	100ppm
Toluene ⁽¹⁾⁽²⁾ ;CAS# 108-88-3*	0.7	100ppm(skin)	50ppm(skin)

(1) These chemicals are subject to SARA Title III, Section 313 reporting

(2) California Proposition 65 listed chemical-See Section V

SECTION III - PHYSICAL DATA

BOILING RANGE: 172-288° F
VAPOR DENSITY (air = 1): Heavier
% SOLIDS BY VOLUME: 75.0
WEIGHT PER GALLON: 14.05 lbs
EVAPORATION RATE (ether = 1): Slower

VAPOR PRESSURE:(mm Hg @ 20°C/68°F)
Methyl ethyl ketone: 70
Xylene: 6
Toluene: 22
VOC: 219 grams/liter (Parts A & B combined)

SECTION IV - FIRE & EXPLOSION HAZARD DATA

FLASH POINT: 20° F (TCC)

EXTINGUISHING MEDIA: Foam, CO2, dry chemical or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Cool containers with water fog to prevent rupture. Boilover may occur when temperature of material approaches boiling point of solvent. Do not extinguish flame at leak because possibility of uncontrolled explosive reignition exists. Cut off fuel and/or allow fire to burn out. Extinguish residual fires with chemical powder or foam.

UNUSUAL FIRE & EXPLOSION HAZARD: Spills or vapor leaks readily form flammable mixtures at or above flash point. It is unlikely that this product will explode due to mechanical impact but fire or explosion may occur from static accumulation and discharge.

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SECTION V - HEALTH HAZARD DATA
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EFFECTS OF OVEREXPOSURE: Inhalations of high concentrations can produce central nervous system depression. Skin contact can cause severe irritation, possible burns, defatting and dermatitis. Eye contact causes severe irritation, redness, tearing and blurred vision.

WARNING!: THIS PRODUCT CONTAINS TOLUENE, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

EMERGENCY & FIRST AID: If overcome by vapors, remove to fresh air and if breathing has stopped, give artificial respiration.
Eye contact: flush immediately with water and call a physician as soon as possible.
Skin contact: Wash with soap and water and remove contaminated clothing.
Ingestion: See a physician as soon as possible.

PRIMARY ROUTES OF ENTRY: Dermal or inhalation most likely.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: Repeated exposure can cause allergic reaction with development of occupational asthma. Long term exposure to low vapor concentrations may cause chronically progressive pulmonary disease. Repeated skin contact can result in sensitization.

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SECTION VI - REACTIVITY DATA
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STABILITY: Stable

CONDITIONS TO AVOID: Heat, sparks and open flame.

INCOMPATIBILITY: Avoid contact with strong oxidizing materials like liquid chlorine and concentrated oxygen.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and/or carbon dioxide may be produced if combustion incomplete.

HAZARDOUS POLYMERIZATION: Will not occur.

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SECTION VII - SPILL OR LEAK PROCEDURES
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all

sources of ignition. Keep people away. Avoid breathing vapors. Recover free liquid and add absorbent to remainder of spill before collecting with non-sparking tools.

WASTE DISPOSAL METHOD: In accordance with local, state, and federal regulations.

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SECTION VIII - SPECIAL PROTECTION INFORMATION
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RESPIRATORY PROTECTION: Contains Isocyanates when mixed with U-64 Part B. Air purifying respirators with organic vapor cartridges are appropriate when the material is trowelled or rolled. A self-contained or supplied air breathing apparatus may be required if material is heated and spray applied in poorly ventilated areas.

VENTILATION (Local/Mechanical): Explosion proof mechanical equipment capable of keeping vapor concentration below the PEL.

PROTECTIVE GLOVES: Chemical resistant gloves. Nitrile recommended.

EYE PROTECTION: Safety goggles.

OTHER PROTECTIVE EQUIPMENT: Eye bath & safety shower should be available.

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SECTION IX - SPECIAL PRECAUTIONS & TOXICOLOGICAL PROPERTIES
=====

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed and store in a cool dry place with adequate explosion proof ventilation. Keep away from heat, sparks and open flame. Ground equipment to prevent accumulation of static charge.

TOXICOLOGICAL PROPERTIES: Solvent contained may be harmful or fatal if swallowed. Vapor harmful. May cause skin or eye irritation.

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SECTION X - TRANSPORT INFORMATION
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SHIPPING NAME: PAINT, 3, UN1263, PGII
PAINT, 3, UN1263, PGII, LTD.QTY.

GROUND: For standard ground shipping see required labels and markings.
Package in 1A2 metal pails. An outer box is not required

Exceptions:

(173.150) Limited Quantities: (Labels & Placards not required)

Inner packagings not over .3 gal each packed in a strong outer packaging, max package weight 66 lbs.

(173.173) Paint, paint related materials, adhesives, inks and resins:

Authorized combination packaging: Metal receptacle in a 4G box.

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Max 2.64 gal per can in a 4G box max 15.8 gal per package
Packaging Instructions - 307

AIR (PASSENGER & CARGO): Max 1.3 gal per package
Max 1.3 gal per can in a 4G box
No single packaging allowed
Packaging Instructions - 305
Ltd.Qty.: (Labels required)
Max 16.9 oz per container
Max 33.8 oz per package

Max 66 lbs per package
Packaging Instructions Y305

AIR (UPS): Same as passenger

OCEAN: Max 181 lbs per package

Max 10.5 gal per metal container or 7.9 gal per plastic container in a 4G box or a 1H1 or 1H2 plastic pail or a 1A1 or 1A2 metal pail.

MISC: ERG# 128
NMFC: 149980.2

REQUIRED LABELS & MARKINGS (AIR, OCEAN AND STANDARD GROUND)

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