Material Safety Data Sheet

600 Liquid Adhesive Quick Dry

1. Product and company identification

Product name : 600 Liquid Adhesive Quick Dry

Material uses : Adhesive for the metal surface and Polyguard membranes.

Supplier/Manufacturer : Polyguard Products

3801 South Interstate 45 Ennis, TX 75119 Tel: (800)541-4994

MSDS authored by : KMK Regulatory Services Inc.

In case of emergency : CHEMTREC, U.S.: 1-800-424-9300 International: +1-703-527-3887

Product type : Liquid.

2. Hazards identification

Emergency overview

Physical state : Liquid.
Color : Black.

Odor : Hydrocarbon. [Strong]

Signal word : DANGER!

Hazard statements : EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.

CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE

DAMAGE. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Precautionary measures: Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions

before use. Do not breathe vapor or mist. Do not ingest. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly

closed and sealed until ready for use. Wash thoroughly after handling.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : May be harmful if swallowed.

Skin : Irritating to skin. May cause sensitization by skin contact.

Eyes : Irritating to eyes.

Potential chronic health effects

Chronic effects : Contains material that can cause target organ damage. Once sensitized, a severe

allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Contains material which can cause cancer. Risk of cancer depends on duration and

level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Target organs : Contains material which may cause damage to the following organs: kidneys, lungs, the

reproductive system, liver, peripheral nervous system, upper respiratory tract, skin,

central nervous system (CNS), eye, lens or cornea.

: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No specific data.

Fertility effects

2. Hazards identification

Ingestion

: Adverse symptoms may include the following: nausea or vomiting

Skin

Adverse symptoms may include the following: irritation redness

Eyes

: Adverse symptoms may include the following: pain or irritation watering redness

Medical conditions aggravated by overexposure

Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Toluene	108-88-3	60 - 100
Methyl ethyl ketone	78-93-3	1 - 5
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	1 - 5
Carbon black (Non-respirable)	1333-86-4	1 - 5

Canada

Name	CAS number	%
Toluene	108-88-3	60 - 100
Methyl ethyl ketone	78-93-3	1 - 5
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	1 - 5
Carbon black (Non-respirable)	1333-86-4	1 - 5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact

: Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact

: In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention if symptoms occur.

Inhalation Ingestion

: Move exposed person to fresh air. Get medical attention if symptoms occur.

: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call medical doctor or poison control center immediately.

Protection of first-aiders Notes to physician

: Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

No specific treatment. Treat symptomatically.

5. Fire-fighting measures

Flammability of the product

Extremely flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable

: Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable

: Do not use water jet.

Special exposure hazards

: Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.



5. Fire-fighting measures

Hazardous decomposition products

: Decomposition products may include the following materials: carbon dioxide carbon monoxide

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions

: Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions

 Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill

: Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill

: Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling

: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Keep away from heat, sparks and flame.

Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits



8. Exposure controls/personal protection

Toluene NIOSH REL (United States, 6/2009). STEL: 560 mg/m3 15 minute(s). STEL: 150 ppm 15 minute(s).

TWA: 375 mg/m3 10 hour(s). TWA: 100 ppm 10 hour(s).

OSHA PEL Z2 (United States, 11/2006).

AMP: 500 ppm 10 minute(s).

CEIL: 300 ppm

TWA: 200 ppm 8 hour(s).

ACGIH TLV (United States, 2/2010).

TWA: 20 ppm 8 hour(s).

ACGIH TLV (United States, 2/2010).

STEL: 885 mg/m3 15 minute(s). STEL: 300 ppm 15 minute(s). TWA: 590 mg/m3 8 hour(s). TWA: 200 ppm 8 hour(s).

NIOSH REL (United States, 6/2009).

STEL: 885 mg/m3 15 minute(s). STEL: 300 ppm 15 minute(s). TWA: 590 mg/m³ 10 hour(s). TWA: 200 ppm 10 hour(s). OSHA PEL (United States, 6/2010). TWA: 590 mg/m3 8 hour(s).

TWA: 200 ppm 8 hour(s).

Manufacturer (United States).

TWA: 100 ppm 8 hour(s). Form: All forms. ACGIH TLV (United States, 2/2010).

TWA: 3.5 mg/m³ 8 hour(s).

NIOSH REL (United States, 6/2009).

TWA: 3.5 mg/m³ 10 hour(s).

TWA: 0.1 mg of PAHs/cm3 10 hour(s). OSHA PEL (United States, 6/2010). TWA: 3.5 mg/m³ 8 hour(s).

Canada

Carbon black

Methyl ethyl ketone

Solvent naphtha (petroleum), medium aliphatic

Occupational exposure limits		TWA (8 hours) STEL (15 mins)		Ceiling							
Ingredient	List name	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other	Notations
Toluene	US ACGIH 2/2010	20	-	-	_	-	-	-	-	-	
	AB 4/2009	50	188	-	-	-	-	-	-	-	[1]
	BC 9/2010	20	-	_	-	-	-	-	-	-	
	ON 7/2010	20	-	-	-	-	-	-	-	-	
	QC 6/2008	50	188	-	-	-	-	-	-	-	[1]
Methyl ethyl ketone	US ACGIH 2/2010	200	590	_	300	885	-	-	-	-	
, ,	AB 4/2009	200	590	-	300	885	-	-	-	-	
	BC 9/2010	50	-	-	100	-	-	-	-	-	
	ON 7/2010	200	590	-	300	885	-	-	-	-	
	QC 6/2008	50	150	-	100	300	-	-	-	-	
Carbon black	US ACGIH 2/2010	-	3.5	-	-	-	-	-	-	-	
	AB 4/2009	-	3.5	-	-	-	-	-	-	-	
	BC 9/2010	-	3.5	-	-	-	-	-	-	}	
	ON 7/2010	-	3.5	-	-	-	-	-	-	}	
	QC 6/2008	-	3.5	-	-	-	-	-	-	}	

[1]Absorbed through skin.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures

: Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Use explosion-proof ventilation equipment.

Hygiene measures

Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Personal protection



8. Exposure controls/personal protection

Respiratory

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure an

MSHA/NIOSH-approved respirator or equivalent is used.

Use gloves appropriate for work or task being performed. Recommended: Chemical **Hands**

resistant gloves.

Eyes Safety eyewear should be used when there is a likelihood of exposure. Recommended:

Safety glasses with side shields.

Personal protective equipment for the body should be selected based on the task being Skin performed and the risks involved and should be approved by a specialist before handling

this product. Recommended: Overalls buttoned to the neck and wrist.

Environmental exposure

controls

: Emissions from ventilation or work process equipment should be checked to ensure they

comply with the requirements of environmental protection legislation.

9. Physical and chemical properties

: Liquid. **Physical state**

: Open cup: -8.33°C (17°F) [Cleveland.] Flash point

Flammable limits : Lower: 1.2%

Upper: 9%

Color : Black.

Odor Hydrocarbon. [Strong]

: 41°C (105.8°F) **Boiling/condensation point**

Relative density

: 20.3 kPa (152 mm Hg) [20°C] Vapor pressure

: 3.5 [Air = 1] Vapor density

Evaporation rate : 4.5 (ether (anhydrous) = 1)

Solubility : Partially soluble in the following materials: cold water and hot water.

: 79.8 % (w/w) [ISO 11890-1] **VOC** content

10. Stability and reactivity

Chemical stability

: The product is stable.

Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. Avoid exposure - obtain special instructions before use. Do not swallow.

Incompatible materials

Reactive or incompatible with the following materials: oxidizing materials, acids and

Hazardous decomposition products

: Decomposition products may include the following materials: carbon dioxide

carbon monoxide

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	49 g/m3	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Methyl ethyl ketone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
Carbon black	LD50 Dermal	Rabbit	>3 g/kg	-
	LD50 Oral	Rat	>15400 mg/kg	-

Irritation/Corrosion



11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes - Mild irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-
Methyl ethyl ketone	Skin - Mild irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Toluene Carbon black	A4 A4	3 2B	-	- +	-	-

IDLH
Synergistic products

: Not available.

: Not available.

12. Ecological information

Ecotoxicity

: No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Toluene	Acute EC50 12500 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 6000 ug/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 15.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 5500 ug/L Fresh water	Fish - Oncorhynchus kisutch - Fry - 1 g	96 hours
	Chronic NOEC 28000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
Methyl ethyl ketone	Acute LC50 >520000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Acute LC50 >400 ppm Marine water	Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) - 8 to 15 mm	96 hours
	Chronic NOEC <70000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Chronic NOEC 400 ppm Marine water	Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) - 8 to 15 mm	96 hours

Other adverse effects

: No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal

: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1139	COATING SOLUTION	3	II	PLANTAGE LEGIS	-
TDG Classification	UN1139	COATING SOLUTION	3	II		-
IMDG Class	UN1139	COATING SOLUTION	3	II	<u> </u>	-
IATA-DGR Class	UN1139	COATING SOLUTION	3	II	&	-

PG*: Packing group Exemption to the above classification may apply. **AERG** : 127

15. Regulatory information

United States

HCS Classification

: Flammable liquid Irritating material Sensitizing material Carcinogen Target organ effects

U.S. Federal regulations

TSCA 8(a) IUR Exempt/Partial exemption: Not determined United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: Toluene; Methyl ethyl ketone; Carbon

black

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Toluene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Methyl ethyl ketone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Carbon black: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: Toluene Clean Water Act (CWA) 311: Toluene

Clean Air Act Section 112(b) Hazardous Air **Pollutants (HAPs)**

: Listed

Clean Air Act Section 602 : Not listed

Class I Substances

Clean Air Act Section 602 : Not listed

Class II Substances

DEA List I Chemicals (Precursor Chemicals) : Not listed

 $\langle M \rangle$

15. Regulatory information

DEA List II Chemicals (Essential Chemicals)

: Listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Toluene	108-88-3	60 - 100
	Methyl ethyl ketone	78-93-3	1 - 5
Supplier notification	Toluene	108-88-3	60 - 100
	Methyl ethyl ketone	78-93-3	1 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts

: The following components are listed: Toluene; Methyl ethyl ketone; Carbon black

New York

: The following components are listed: Toluene; Methyl ethyl ketone

New Jersey

: The following components are listed: Toluene; Methyl ethyl ketone; Solvent naphtha (petroleum), medium aliphatic; Carbon black

Pennsylvania

: The following components are listed: Toluene; Methyl ethyl ketone; Carbon black

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	3	Maximum acceptable dosage level
Toluene	No.	Yes.	No.	7000 μg/day (ingestion) 13000 μg/day (inhalation)
Carbon black Quartz	Yes. Yes.	No. No.	No. No.	No. No.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid

Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI

: The following components are listed: Toluene; Methyl ethyl ketone; Solvent naphtha medium aliphatic

CEPA Toxic substances

: None of the components are listed.

Canada inventory

: All components are listed or exempted.

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.

International regulations

International lists

: Australia inventory (AICS): All components are listed or exempted. China inventory (IECSC): All components are listed or exempted.

Japan inventory: Not determined.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

16. Other information

Label requirements

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

Physical hazards: 0

3

Hazardous Material Information System (U.S.A.)

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Flammability:

2 *

The customer is responsible for determining the PPE code for this material.

: Health:

National Fire Protection Association (U.S.A.)

: Health: 2 Flammability: 3 Instability: 0

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Canada

WHMIS (Canada)





History

Date of issue : 05/15/2011

Date of previous issue : 05/31/2008

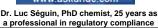
Version : 2

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

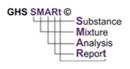
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.







Global - Multilingual authoring services for all regulatory documents



Optimizing your company's GHS deployment

