

MATERIAL SAFETY DATA SHEET

REGUPOL PU350

1. Product and Company Identification

Product name: Regupol PU350
Supplier: Regupol America LLC
33 Keystone Drive
Lebanon, PA 17042
www.regupol.com

Telephone no. 800-537-8737
Fax no. 717-675-2199

In case of emergency CHEMTREC: 800-424-9300
INTERNATIONAL: 703-527-3887

Manufacturer Regupol America LLC
33 Keystone Drive
Lebanon, PA 17042
www.regupol.com

Validation date 26 January 2010
Print date 26 January 2010.
Product type : Liquid.

2. Composition/Information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Polyisocyanate Prepolymer	Mixture	
naphtha (petroleum), hydrotreated heavy	64742-48-9	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.

3. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Inhalation : Slightly irritating to the respiratory system. May cause sensitization by inhalation. Reports have associated repeated and prolonged exposure to some of the chemical in this product with permanent brain, liver, kidney and central nervous system damage.

Eyes: Irritating to eyes.

Ingestion: Harmful if swallowed.

Skin: Irritating to skin.

See toxicological information (section 11)

4. First aid measure

Eye contact: Check for and remove any contact lenses. Get medical attention. Immediately flush eyes with plenty of water for at least 15 minutes.

Skin contact:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse.
Inhalation	Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. Maintain an open airway. In the event of any complaints or symptoms, avoid further exposure
Ingestion	Wash out mouth with water. Move exposed person to fresh air. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention. Never give anything by mouth to an unconscious person.
Notes to physician	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product Combustible 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.

Extinguishing media

Suitable :	Use dry chemical, CO ₂ , water spray (fog) or foam.
Not suitable:	Do not use water jet.
Special exposure hazards :	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool
Hazardous combustion products	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
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

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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).

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. 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.

Small spill

Stop leak if without risk. Move containers from spill area. 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.

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 asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. 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. Do not reuse container.

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

Product name

Ethene, chloro-, homopolymer

ACGIH TLV (United States, 1/2008).

TWA: 1 mg/m³ 8 hour(s). Form: Respirable fraction

4,4'-methylenediphenyl diisocyanate

ACGIH TLV (United States, 1/2008).

TWA: 0.005 ppm 8 hour(s).

NIOSH REL (United States, 6/2008).

CEIL: 0.2 mg/m³ 10 minute(s).

CEIL: 0.02 ppm 10 minute(s).

TWA: 0.05 mg/m³ 10 hour(s).

TWA: 0.005 ppm 10 hour(s).

OSHA PEL (United States, 11/2006).

CEIL: 0.2 mg/m³

CEIL: 0.02 ppm

OSHA PEL 1989 (United States, 3/1989).

CEIL: 0.2 mg/m³

CEIL: 0.02 ppm

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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures

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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection
Respiratory

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

Hands

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin

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

9. Physical and chemical properties

Physical state
Flash point
Odor
Density
VOC

Viscous liquid.
Closed cup: 61°C (141.8°F)
Hydrocarbon.
~1.18 g/cm³
57 (g/l).

10. Stability and reactivity

Stability
Conditions to avoid

The product is stable
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.

Materials to avoid

Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization

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

11. Toxicology information

Potential chronic health effects

Chronic effects

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels

Acute toxicity

Conclusion/Summary

Not available

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Ethene, chloro-, homopolymer	A4	3	-	-	-	-
4,4'-methylenediphenyl diisocyanate	-	3	-	-	-	-

12. Ecological information

Environmental effects :

No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. 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

Regulatory Information	UN number	Proper shipping name	Classes	PG*	Additional Information
DOT Classification	Not Regulated		-	-	-
TDG Classification	Not Regulated		-	-	-
ADR/RID Class	Not Regulated		-	-	-
IMDG Class	Not Regulated		-	-	-
IATA-DGR	Not		-	-	-

Class	Regulated				
--------------	------------------	--	--	--	--

PG* : Packing group

15. Regulatory Information

U.S. Federal regulations

TSCA 8(a) PAIR: 4,4'-methylenediphenyl diisocyanate **United States inventory (TSCA 8b)**: All components are listed or exempted. TSCA 8(d) H and S data reporting: 4,4'-methylenediphenyl diisocyanate: 1990

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: calcium carbonate; Ethene, chlorohomopolymer

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: calcium carbonate: Immediate (acute) health hazard; Ethene, chloro-, homopolymer: Delayed (chronic) health hazard

Clean Water Act (CWA) 307: vinyl chloride

SARA 313

Product name

CAS number

Concentration

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.

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

No significant Risk Level

Maximum acceptable dosage Level

1,2-Benzenedicarboxylic acid, di-C9-11- branched alkyl esters, C10-rich	No.	Yes.	No.	No
Quartz (SiO ₂)	Yes.	No.	No.	No.
vinyl chloride	Yes.	No.	Yes.	No.

United States inventory (TSCA 8b)

All components are listed or exempted.

16. Other information

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

Health	*	2
Flammability		2
Physcial Hazard		0

Personel Protection Equipment	C
-------------------------------	---

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.

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

Date of printing	28.09.2009
Date of issue	28.09.2009
Date of previous issue	01.06.2009
Version	3.03

Indicates information that has changed from previously issued version.

Notice to reader

The information contained in this Material Safety Data Sheet applies only to the actual Regupol America ("Regupol") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Regupol product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Regupol believes to be reliable as of the date hereof. Prior to each use of any Regupol product, the user must always read and follow the warnings and instructions on the product's current Technical Data Sheet, product label and Material Safety Data Sheet for each Regupol product, which are available at web site and/or telephone number listed in Section 1 of this MSDS.

REGUPOL MAKES NO WARRANTIES EXPRESS OR IMPLIED AND ASSUMES NO LIABILITY ARISING FROM THIS INFORMATION OR ITS USE. REGUPOL SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES AND SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS. All sales of Regupol products are subject to its current terms and conditions of sale available at 800-537-8737.