

SAFETY DATA SHEET

Revision Date 22-Oct-2020 Version 4

1. IDENTIFICATION

Product identifier

Product Name PUR Hardener

Other means of identification

Product Code CG0270-025 UN/ID no UN1263

SKU(s) CG0270-025, CG0270-100, CG0270-500, CG0270-950, CG0270-955

Recommended use of the chemical and restrictions on use
Recommended Use No information available.
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Diamond Vogel 1020 Albany Place SE Orange City, IA 51041 Phone: (712) 737-4993 Fax: (712) - 737-4997

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Emergency Overview

Danger

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction

Suspected of causing cancer

May cause respiratory irritation. May cause drowsiness or dizziness

Highly flammable liquid and vapor



Appearance No information available

Physical state Liquid

Odor No information available

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Avoid breathing dust/fume/gas/mist/vapors/spray

In case of inadequate ventilation wear respiratory protection

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Use only outdoors or in a well-ventilated area

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

Keep container tightly closed

Ground/bond container and receiving equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Keep cool

Use explosion-proof electrical/ ventilating/ lighting/ equipment

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

- May be harmful if swallowed
- · May be harmful in contact with skin
- · Causes mild skin irritation
- · Harmful to aquatic life

Unknown acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%	Trade Secret
Butyl Acetate	123-86-4	30 - 60	*
Polymeric Isocyanate	28182-81-2	15 - 40	*
Xylene	1330-20-7	1 - 5	*
Ethyl Benzene	100-41-4	1 - 5	*
Hexamethylene-1,6-diisocyanate	822-06-0	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Eye contactRinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin ContactCall a physician immediately. In the case of skin irritation or allergic reactions see a

physician. Wash contaminated clothing before reuse.

Inhalation Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately. May cause allergic respiratory reaction.

Ingestion Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an

unconscious person. Get medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause

allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization by inhalation and skin contact. Treat symptomatically. Symptoms

may be delayed.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Flammable.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx).

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system. See Section 12 for additional

Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Cover liquid spill with sand, earth or other non-combustible absorbent material. Soak up

with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric

motors and static electricity).

Incompatible materials Chlorinated compounds. Incompatible with oxidizing agents. Strong bases. Water. Alcohols.

Amines. Copper.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Butyl Acetate	STEL: 150 ppm	TWA: 150 ppm	IDLH: 1700 ppm
123-86-4	TWA: 50 ppm	TWA: 710 mg/m ³	TWA: 150 ppm
		(vacated) TWA: 150 ppm	TWA: 710 mg/m ³
		(vacated) TWA: 710 mg/m ³	STEL: 200 ppm
		(vacated) STEL: 200 ppm	STEL: 950 mg/m ³
		(vacated) STEL: 950 mg/m ³	_
Xylene	STEL: 150 ppm	TWA: 100 ppm	-
1330-20-7	TWA: 100 ppm	TWA: 435 mg/m ³	
		(vacated) TWA: 100 ppm	
		(vacated) TWA: 435 mg/m ³	
		(vacated) STEL: 150 ppm	
		(vacated) STEL: 655 mg/m ³	
Ethyl Benzene	TWA: 20 ppm	TWA: 100 ppm	IDLH: 800 ppm
100-41-4		TWA: 435 mg/m ³	TWA: 100 ppm
		(vacated) TWA: 100 ppm	TWA: 435 mg/m ³
		(vacated) TWA: 435 mg/m ³	STEL: 125 ppm
		(vacated) STEL: 125 ppm	STEL: 545 mg/m ³
		(vacated) STEL: 545 mg/m ³	-
Hexamethylene-1,6-diisocyanate	TWA: 0.005 ppm	-	Ceiling: 0.020 ppm 10 min
822-06-0			Ceiling: 0.140 mg/m ³ 10 min
			TWA: 0.005 ppm
			TWA: 0.035 mg/m ³

NIOSH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962

(11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection No special technical protective measures are necessary.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

Remarks • Method

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

AppearanceNo information availableOdorNo information availableColorNo information availableOdor thresholdNo information available

<u>Property</u> <u>Values</u>

pH
No information available
>= 118 °C / 244 °F
22 °C / 72 °F
Evaporation rate
No information available
Flammability (solid, gas)
No information available

Flammability Limit in Air

Upper flammability limit:No information availableLower flammability limit:No information availableVapor pressureNo information availableVapor densityNo information available

Specific Gravity 0.96

Water solubility No information available Solubility in other solvents No information available Partition coefficient No information available **Autoignition temperature** No information available **Decomposition temperature** No information available Kinematic viscosity No information available Dynamic viscosity No information available **Explosive properties** No information available **Oxidizing properties** No information available

Other Information

Softening point No information available Molecular weight No information available

Liquid Density 8.03 lbs/gal

Bulk density No information available

Percent solids by weight 37.5% Percent volatile by weight 62.5% Percent solids by volume 32.9% Actual VOC (lbs/gal) 5 Actual VOC (grams/liter) 601.1 EPA VOC (lbs/gal) 5 EPA VOC (grams/liter) 601.1 EPA VOC (lb/gal solids) 15.2

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Chlorinated compounds. Incompatible with oxidizing agents. Strong bases. Water. Alcohols. Amines. Copper.

Hazardous decomposition products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation May cause sensitization by inhalation.

Eye contact May cause irritation.

Skin Contact May cause irritation. May cause sensitization by skin contact.

Ingestion No data available.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Butyl Acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
Polymeric Isocyanate 28182-81-2	-	-	= 18500 mg/m³(Rat)1 h
Xylene 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit)> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h = 5000 ppm (Rat) 4 h
Ethyl Benzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.4 mg/L (Rat) 4 h
Hexamethylene-1,6-diisocyanate 822-06-0	= 738 mg/kg (Rat)	= 593 mg/kg (Rabbit)	= 0.06 mg/L (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause sensitization by inhalation and skin contact.

Germ cell mutagenicityNo information available.
Carcinogenicity
No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Xylene	-	Group 3	=	=
1330-20-7		-		
Ethyl Benzene	A3	Group 2B	-	X
100-41-4				

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans Group 3 - Not classifiable as a human carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
No information available.
No information available.

Chronic toxicity Ethylbenzene has been classified by the International Agency for Research on Cancer

(IARC) as possibly carcinogenic to humans (Group 2B). Prolonged or repeated

overexposure to ethylbenzene may result in adverse effects to the kidneys, liver, respiratory

system, thyroid, testicles, and pituitary glands.

Target organ effects Central nervous system, Eyes, Respiratory system, Skin.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document mg/kg mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life

37.25% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Butyl Acetate	674.7: 72 h Desmodesmus	100: 96 h Lepomis macrochirus	72.8: 24 h Daphnia magna mg/L
123-86-4	subspicatus mg/L EC50	mg/L LC50 static 17 - 19: 96 h	EC50
		Pimephales promelas mg/L LC50	
		flow-through 62: 96 h Leuciscus	
		idus mg/L LC50 static	
Xylene	-	13.4: 96 h Pimephales promelas	3.82: 48 h water flea mg/L EC50
1330-20-7		mg/L LC50 flow-through 13.1 - 16.5:	0.6: 48 h Gammarus lacustris mg/L
		96 h Lepomis macrochirus mg/L	LC50
		LC50 flow-through 13.5 - 17.3: 96 h	
		Oncorhynchus mykiss mg/L LC50	
		30.26 - 40.75: 96 h Poecilia	
		reticulata mg/L LC50 static 2.661 -	
		4.093: 96 h Oncorhynchus mykiss	
		mg/L LC50 static 23.53 - 29.97: 96	
		h Pimephales promelas mg/L LC50	
		static 780: 96 h Cyprinus carpio	
		mg/L LC50 semi-static 780: 96 h	
		Cyprinus carpio mg/L LC50 7.711 -	
		9.591: 96 h Lepomis macrochirus	
		mg/L LC50 static 19: 96 h Lepomis	
		macrochirus mg/L LC50	
Ethyl Benzene	438: 96 h Pseudokirchneriella		1.8 - 2.4: 48 h Daphnia magna mg/L
100-41-4	subcapitata mg/L EC50 2.6 - 11.3:	mykiss mg/L LC50 static 4.2: 96 h	EC50
	72 h Pseudokirchneriella	Oncorhynchus mykiss mg/L LC50	
	subcapitata mg/L EC50 static 4.6:	semi-static 7.55 - 11: 96 h	
	72 h Pseudokirchneriella	Pimephales promelas mg/L LC50	
	subcapitata mg/L EC50 1.7 - 7.6: 96		
	h Pseudokirchneriella subcapitata	Pimephales promelas mg/L LC50	
	mg/L EC50 static	static 32: 96 h Lepomis macrochirus	
		mg/L LC50 static 9.6: 96 h Poecilia	
11 11 1 10 11		reticulata mg/L LC50 static	
Hexamethylene-1,6-diisocyanate	-	26.1: 96 h Brachydanio rerio mg/L	-
822-06-0		LC50 static	

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient
Butyl Acetate	1.81
123-86-4	
Xylene	2.77 - 3.15
1330-20-7	
Ethyl Benzene	3.2
100-41-4	

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number D001 U239

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Xylene	=	Included in waste stream:	-	U239
1330-20-7		F039		
Ethyl Benzene	-	Included in waste stream:	-	-
100-41-4		F039		

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Butyl Acetate	Toxic
123-86-4	
Xylene	Toxic
1330-20-7	Ignitable
Ethyl Benzene	Toxic
100-41-4	Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no UN1263

Proper shipping name Paint related material

Hazard class 3
Packing Group II

Reportable Quantity (RQ) (Butyl Acetate: RQ (kg)= 2270.00, Xylene: RQ (kg)= 45.40,

Hexamethylene-1,6-diisocyanate: RQ (kg)= 45.40)

Special Provisions 149, B52, IB2, T4, TP1, TP8, TP28 **Description** UN1263, Paint related material, 3, II

128

Emergency Response Guide

Number

TDG

UN/ID no UN1263

Proper shipping name Paint related material

Hazard class 3
Packing Group II
Special Provisions 59, 83

Description UN1263, Paint related material, 3, II

MEX

UN/ID no UN1263

Proper shipping name Paint related material

Hazard class 3
Special Provisions 163
Packing Group II

Description UN1263, Paint related material, 3, II

ICAO (air)

UN/ID no UN1263

Proper shipping name Paint related material

Hazard class 3
Packing Group II
Special Provisions A3, A72

Description UN1263, Paint related material, 3, II

IATA

UN Number UN1263

Proper shipping name Paint related material

Transport hazard class(es) 3
Packing Group II
ERG Code 3L
Special Provisions A3, A72

Description UN1263, Paint related material, 3, II

IMDG

UN Number UN1263
Transport hazard class(es) 3
Packing Group II
EmS-No F-E, S-E
Special Provisions 163

Description UN1263, Paint related material, 3, II, (22°C c.c.)

RID

UN/ID no UN1263

Proper shipping name Paint related material

Transport hazard class(es) 3
Packing Group || Classification code || F1

Special Provisions 163, 640C, 650

Description UN1263, Paint related material, 3, II

Labels 3

ADR

UN Number UN1263

Proper shipping name Paint related material

Transport hazard class(es) 3
Packing Group II
Classification code F1
Tunnel restriction code (D/E)

Special Provisions 163, 640C, 650

Description UN1263, Paint related material, 3, II, (D/E)

Labels 3

<u>ADN</u>

Proper shipping name Paint related material

Transport hazard class(es) 3
Packing Group || Classification code || F1

Special Provisions 163, 640C, 650

Description UN1263, Paint related material, 3, II

Hazard label(s) 3
Limited quantity (LQ) 5 L
Ventilation VE01
Equipment Requirements PP, EX, A

15. REGULATORY INFORMATION

International Inventories

TSCA Complies DSL/NDSL Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %	
Xylene - 1330-20-7	1.0	
Ethyl Benzene - 100-41-4	0.1	

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard No
Fire hazard Yes
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Butyl Acetate 123-86-4	5000 lb	-	-	Х
Xylene 1330-20-7	100 lb	-	-	Х
Ethyl Benzene 100-41-4	1000 lb	X	Х	Х

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Butyl Acetate	5000 lb	-	RQ 5000 lb final RQ
123-86-4			RQ 2270 kg final RQ
Xylene	100 lb	-	RQ 100 lb final RQ
1330-20-7			RQ 45.4 kg final RQ
Ethyl Benzene	1000 lb	=	RQ 1000 lb final RQ
100-41-4			RQ 454 kg final RQ
Hexamethylene-1,6-diisocyanate	100 lb	-	RQ 100 lb final RQ
822-06-0			RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Ethyl Benzene - 100-41-4	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts
Butyl Acetate 123-86-4	X	X
Xylene 1330-20-7	X	Х
Ethyl Benzene 100-41-4	X	X

Chemical name	Pennsylvania
Butyl Acetate	X
123-86-4	
Xylene	X
1330-20-7	
Ethyl Benzene	X
100-41-4	

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Hazardous air pollutants (HAPS) content

LIST OF HAZARDOUS AIR POLLUTANTS SUBJECT TO THE PROVISIONS OF THE CLEAN AIR ACT, TITLE I SECTION 112 'National Emission Standards for Hazardous Air Pollutants' (present individually at 1% by weight, or greater):

Chemical name	Weight % of HAPS in Product	Pounds HAPS / Gal Product
Xylene 1330-20-7	4.50%	0.36
Ethyl Benzene 100-41-4	1.50%	0.12

16. OTHER INFORMATION. INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA Health hazards 2 Flammability 3 Instability 0 Physical and chemical

properties HMIS Health hazards 2 * Flammability 3 Physical hazards 0 Personal protection X

Chronic Hazard Star Legend *= Chronic Health Hazard

Revision Date 22-Oct-2020

Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text. Shipping information may vary based upon container size and shipping destination. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. The manufacturer assumes no responsibility for injury to the recipient or third persons, or for any damages to any property resulting from misuse of the product.

End of Safety Data Sheet