SAFETY DATA SHEET

Revision Date 09-Dec-2022 **Version** 6

1. IDENTIFICATION

Product identifier
Product Name PUR Hardener

Other means of identification
Product Code CG0270-100
UN/ID no UN1263
SKU(s) CG0270-025, CG0270-100, CG0270-500, CG0270-950

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)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
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
Harmful if inhaled
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
Use only outdoors or in a well-ventilated area
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
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 contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact Call 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 123-86-4	STEL: 150 ppm TWA: 50 ppm	TWA: 150 ppm TWA: 710 mg/m³ (vacated) TWA: 150 ppm (vacated) TWA: 710 mg/m³ (vacated) STEL: 200 ppm (vacated) STEL: 950 mg/m³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³
Xylene 1330-20-7	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m³	-
Ethyl Benzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³
Hexamethylene-1,6-diisocyanate 822-06-0	TWA: 0.005 ppm	-	Ceiling: 0.020 ppm 10 min Ceiling: 0.140 mg/m³ 10 min TWA: 0.005 ppm TWA: 0.035 mg/m³

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	No information available	**Odor**	No information available
Color	No information available	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	>= 118 °C / 244 °F	
Flash point	22 °C / 72 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No 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)	= 0.74 mg/L (Rat) 4 h
Polymeric Isocyanate 28182-81-2	-	> 2000 mg/kg (Rat)	= 18500 mg/m^3 (Rat) 1 h
Xylene 1330-20-7	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (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)	> 7000 mg/kg (Rat)	= 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 mutagenicity No information available.
Carcinogenicity No information available.

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

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

37.5% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Butyl Acetate 123-86-4	674.7: 72 h Desmodesmus subspicatus mg/L EC50	17 - 19: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Lepomis macrochirus mg/L LC50 static	-
Xylene 1330-20-7	-	13.1 - 16.5: 96 h Lepomis macrochirus mg/L LC50 flow-through 13.5 - 17.3: 96 h Oncorhynchus mykiss mg/L LC50 2.661 - 4.093: 96 h Oncorhynchus mykiss mg/L LC50 static 23.53 - 29.97: 96 h Pimephales promelas mg/L LC50 static 30.26 - 40.75: 96 h Poecilia reticulata mg/L LC50 static 7.711 - 9.591: 96 h Lepomis macrochirus mg/L LC50 static 13.4: 96 h Pimephales promelas mg/L LC50 flow-through 19: 96 h Lepomis macrochirus mg/L LC50 780: 96 h Cyprinus carpio mg/L LC50 semi-static 780: 96 h Cyprinus carpio mg/L LC50	0.6: 48 h Gammarus lacustris mg/L LC50 3.82: 48 h water flea mg/L EC50
Ethyl Benzene 100-41-4	1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 438: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 9.6: 96 h Poecilia reticulata mg/L LC50 static	1.8 - 2.4: 48 h Daphnia magna mg/L EC50
Hexamethylene-1,6-diisocyanate 822-06-0	-	26.1: 96 h Brachydanio rerio mg/L LC50 static	-

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical name	Partition coefficient
Butyl Acetate 123-86-4	1.81 2.3
Xylene 1330-20-7	2.77 - 3.15
Ethyl Benzene 100-41-4	3.6

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.

14. TRANSPORT INFORMATION

DOT

UN/ID no	UN1263
Proper shipping name	Paint
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, 3, II
Emergency Response Guide Number	128

TDG

UN/ID no	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Special Provisions	59, 83
Description	UN1263, Paint, 3, II

MEX

UN/ID no	UN1263
Proper shipping name	Paint
Hazard class	3
Special Provisions	163
Packing Group	II
Description	UN1263, Paint, 3, II

ICAO (air)

UN/ID no	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Special Provisions	A3, A72
Description	UN1263, Paint, 3, II

IATA

UN Number	UN1263
Proper shipping name	Paint
Transport hazard class(es)	3
Packing Group	II
ERG Code	3L
Special Provisions	A3, A72
Description	UN1263, Paint, 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, 3, II, (22°C c.c.)

RID

UN/ID no	UN1263
Proper shipping name	Paint
Transport hazard class(es)	3
Packing Group	II
Classification code	F1
Special Provisions	163, 640C, 650
Description	UN1263, Paint, 3, II
Labels	3

ADR

UN Number	UN1263
Proper shipping name	Paint
Transport hazard class(es)	3
Packing Group	II
Classification code	F1
Tunnel restriction code	(D/E)
Special Provisions	163, 640C, 650
Description	UN1263, Paint, 3, II, (D/E)
Labels	3

ADN

Proper shipping name	Paint
Transport hazard class(es)	3
Packing Group	II
Classification code	F1
Special Provisions	163, 640C, 650
Description	UN1263, Paint, 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	-	-	X
Xylene 1330-20-7	100 lb	-	-	X
Ethyl Benzene 100-41-4	1000 lb	X	X	X

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 123-86-4	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Xylene 1330-20-7	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ
Ethyl Benzene 100-41-4	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Hexamethylene-1,6-diisocyanate 822-06-0	100 lb	-	RQ 100 lb final RQ 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	X
Ethyl Benzene 100-41-4	X	X

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

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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	4.25%	0.34
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 09-Dec-2022

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