SAFETY DATA SHEET

Revision Date 04-Oct-2022 **Version** 2

1. IDENTIFICATION

Product identifier
Product Name Lacquer Thinner (High Strength)

Other means of identification
Product Code N-9102
UN/ID no UN1263
SKU(s) None

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)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Flammable liquids	Category 2

Emergency Overview

Danger

Hazard statements
Causes skin irritation
Causes serious eye damage
May cause genetic defects
May cause cancer
Suspected of damaging fertility or the unborn child
May cause respiratory irritation. May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
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
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
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
• Toxic to aquatic life with long lasting effects
• Toxic 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
Toluene	108-88-3	15 - 40	*
Ethyl Acetate	141-78-6	10 - 30	*
Aliphatic Hydrocarbon	64742-49-0	7 - 13	*
Butyl Acetate	123-86-4	7 - 13	*

n-Butanol	71-36-3	5 - 10	*
Ethanol	64-17-5	5 - 10	*
Heptane	142-82-5	3 - 7	*

*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 Wash skin with soap and water.

Inhalation Remove to fresh air.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

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.

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 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. Do not eat, drink or smoke when using this product.

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 Strong oxidizing agents. Strong acids. Chlorinated compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm (vacated) TWA: 100 ppm (vacated) TWA: 375 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 560 mg/m³ Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m³ STEL: 150 ppm STEL: 560 mg/m³
Ethyl Acetate 141-78-6	TWA: 400 ppm	TWA: 400 ppm TWA: 1400 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 1400 mg/m³	IDLH: 2000 ppm TWA: 400 ppm TWA: 1400 mg/m³
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
n-Butanol 71-36-3	TWA: 20 ppm	TWA: 100 ppm TWA: 300 mg/m³ (vacated) S* (vacated) Ceiling: 50 ppm (vacated) Ceiling: 150 mg/m³	IDLH: 1400 ppm Ceiling: 50 ppm Ceiling: 150 mg/m³
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m³
Heptane 142-82-5	STEL: 500 ppm TWA: 400 ppm	TWA: 500 ppm TWA: 2000 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 1600 mg/m³ (vacated) STEL: 500 ppm (vacated) STEL: 2000 mg/m³	IDLH: 750 ppm Ceiling: 440 ppm 15 min Ceiling: 1800 mg/m³ 15 min TWA: 85 ppm TWA: 350 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 No special technical protective measures are necessary.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

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	>= 64 °C / 148 °F	
Flash point	-3 °C / 27 °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	0.83	
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	6.90 lbs/gal
Bulk density	No information available
Percent solids by weight	0.0%
Percent volatile by weight	100.0%
Percent solids by volume	0.0%
Actual VOC (lbs/gal)	6.9
Actual VOC (grams/liter)	826.5
EPA VOC (lbs/gal)	6.9
EPA VOC (grams/liter)	826.5
EPA VOC (lb/gal solids)	0

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
Strong oxidizing agents. Strong acids. Chlorinated compounds.

Hazardous decomposition products
Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Ethyl Acetate 141-78-6	= 5620 mg/kg (Rat)	> 18000 mg/kg (Rabbit)	= 4000 ppm (Rat) 4 h
Aliphatic Hydrocarbon 64742-49-0	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 73680 ppm (Rat) 4 h
Butyl Acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 0.74 mg/L (Rat) 4 h
n-Butanol 71-36-3	= 700 mg/kg (Rat)	= 3402 mg/kg (Rabbit)	> 8000 ppm (Rat) 4 h
Ethanol 64-17-5	= 7060 mg/kg (Rat)	-	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
Heptane 142-82-5	-	= 3000 mg/kg (Rabbit)	> 73.5 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 No information available.
Germ cell mutagenicity No information available.
Carcinogenicity Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Chemical name	ACGIH	IARC	NTP	OSHA
Toluene 108-88-3	-	Group 3	-	-
Ethanol 64-17-5	A3	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 3 - Not classifiable as a human carcinogen
NTP (National Toxicology Program)

Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity Product is or contains a chemical which is a known or suspected reproductive hazard.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity Contains a known or suspected reproductive toxin. Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
Target organ effects blood, Central nervous system, Eyes, kidney, liver, Reproductive System, 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

Toxic to aquatic life with long lasting effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Toluene 108-88-3	12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 433: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 14.1 - 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 12.6: 96 h Pimephales promelas mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 54: 96 h Oryzias latipes mg/L LC50 static	5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static 11.5: 48 h Daphnia magna mg/L EC50
Ethyl Acetate 141-78-6	-	220 - 250: 96 h Pimephales promelas mg/L LC50 flow-through 352 - 500: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 484: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	560: 48 h Daphnia magna mg/L EC50 Static
Aliphatic Hydrocarbon 64742-49-0	-	8.41: 96 h Oncorhynchus mykiss mg/L LC50 semi-static, closed	-
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	-
n-Butanol 71-36-3	500: 72 h Desmodesmus subspicatus mg/L EC50 500: 96 h Desmodesmus subspicatus mg/L EC50	100000 - 500000: 96 h Lepomis macrochirus µg/L LC50 static 1730 - 1910: 96 h Pimephales promelas mg/L LC50 static 1740: 96 h Pimephales promelas mg/L LC50 flow-through 1910000: 96 h Pimephales promelas µg/L LC50 static	1897 - 2072: 48 h Daphnia magna mg/L EC50 Static 1983: 48 h Daphnia magna mg/L EC50
Ethanol 64-17-5	-	12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static

		static	
Heptane 142-82-5	-	375.0: 96 h Cichlid fish mg/L LC50	-

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical name	Partition coefficient
Toluene 108-88-3	2.73 3.44 3.93
Ethyl Acetate 141-78-6	0.73
Butyl Acetate 123-86-4	1.81 2.3
n-Butanol 71-36-3	1
Ethanol 64-17-5	-0.35
Heptane 142-82-5	4.66

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 related material
Hazard class 3
Packing Group II
Reportable Quantity (RQ) (Toluene: RQ (kg)= 0.454, Butyl Acetate: RQ (kg)= 2270.00, Ethyl Acetate: RQ (kg)= 2270.00)
Special Provisions 149, B52, IB2, T4, TP1, TP8, TP28
Description UN1263, Paint related material, 3, II
Emergency Response Guide Number 128

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, (-3°C c.c.)

RID

UN/ID no	UN1263
Proper shipping name	Paint related material
Transport hazard class(es)	3
Packing Group	II
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

ADN

Proper shipping name	Paint related material
Transport hazard class(es)	3
Packing Group	II
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 %
Toluene - 108-88-3	1.0
n-Butanol - 71-36-3	1.0

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
Toluene 108-88-3	1000 lb	X	X	X
Butyl Acetate 123-86-4	5000 lb	-	-	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)
Toluene 108-88-3	1000 lb 1 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ
Ethyl Acetate 141-78-6	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Butyl Acetate 123-86-4	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
n-Butanol 71-36-3	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Toluene - 108-88-3	Developmental
Ethanol - 64-17-5	Carcinogen Developmental
Methanol - 67-56-1	Developmental
Methyl Isobutyl Ketone - 108-10-1	Carcinogen Developmental
Ethyl Benzene - 100-41-4	Carcinogen

Benzene(including benzene from gasoline) - 71-43-2	Carcinogen Developmental Male Reproductive
Cumene - 98-82-8	Carcinogen
Naphthalene - 91-20-3	Carcinogen
Hexane - 110-54-3	Male Reproductive

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts
Toluene 108-88-3	X	X
Ethyl Acetate 141-78-6	X	X
Butyl Acetate 123-86-4	X	X
n-Butanol 71-36-3	X	X
Ethanol 64-17-5	X	X
Heptane 142-82-5	X	X
Methanol 67-56-1	X	X

Chemical name	Pennsylvania
Toluene 108-88-3	X
Ethyl Acetate 141-78-6	X
Butyl Acetate 123-86-4	X
n-Butanol 71-36-3	X
Ethanol 64-17-5	X
Heptane 142-82-5	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
Toluene 108-88-3	35.39%	2.44

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 04-Oct-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