

SECTION 1: IDENTIFICATION**1.1 Product Identifier**

Product Name: Lonseal #400 Contact Adhesive
Product Code(s): ZAD4001, ZAD4005, ZAD40055

1.2 Relevant Identified Uses and Uses Advised Against

Product Use: Sheet vinyl flooring adhesive (see Technical Data Sheet for additional details)
Product Restrictions: For use with sheet vinyl flooring only (see Technical Data Sheet for additional details)

1.3 Details of the Supplier of the Safety Data Sheet

Manufactured for: Lonseal Inc.
Address: 19630 Pacific Gateway Dr.
Torrance, CA 90502
(310) 830-7111

24 Hour Emergency Phone Number(s): INFOTRAC – U.S. & Canada: 1-800-535-5053
International: 1-352-353-3500

SECTION 2: HAZARD(S) IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Flammable Liquids , Category 2:	H225	Highly flammable liquid and vapor.
Serious Eye Damage/Irritation , Category 2A:	H319	Causes serious eye irritation.
Reproductive Toxicity , Category 2:	H361D	Suspected of damaging the unborn child.
STOT SE , Category 3:	H336	May cause drowsiness or dizziness.
Aquatic, Long-Term (Chronic) , Category 3:	H412	Harmful to aquatic life with long lasting effects.

2.2 Label Elements

Signal Word: DANGER

Hazard Statement(s):

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361D	Suspected of damaging the unborn child.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No Smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion proof electrical, ventilating, light, and equipment.
P242	Use only non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves, eye protection, and face protection.

Response Statement(s):

P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected area with water, shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use alcohol resistant foam, CO₂, powder, or water spray to extinguish.

Storage Statement(s):

P403+P233 Store in a well-ventilated space. Keep container tightly closed.
P403+P235 Store in a well-ventilated space. Keep cool.
P405 Store locked up.

Disposal Statement(s):

P501 Dispose of contents/container in accordance with local/national regulations.

2.3 Other Hazards

None noted by manufacturer.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations:

Ingredient/Chemical Name	CAS Number	Weight %	Classification*
Acetone	67-64-1	50 – 75	Flam. Liq. 2: H225 Eye Irrit. 2: H319 STOT SE 3: H336
2-Propenenitrile, polymer with 1,3-butadiene	9003-18-3	10 – 25	Not classified
Chlorinated paraffin	63449-39-8	1.0 – 10	Not classified
Formaldehyde, polymer with 4-(1,1-dimethylethyl)ph	25085-50-1	1.0 – 10	Not classified
Formaldehyde, polymer with ammonia	55185-45-0	1.0 – 10	Not classified
Salicylic acid	69-72-7	1.0 – 10	Acute Tox. 4: H302 Eye Dam. 1: H318 Repr. Tox. 2: H361D
Zinc oxide	1314-13-2	1.0 – 10	Aquatic Acute 1: H400 Aquatic Chronic 1: H410
p-tert-Butyl phenol	98-54-4	0.10 – 10	Skin Irrit. 2: H315 Eye Dam. 1: H318 Repr. Tox. 2: H361F Aquatic Chronic 1: H410

*The full text of the GHS Hazards Statement may be found in Section 16.

SECTION 4: FIRST-AID MEASURES**4.1 Description of necessary first-aid measures**

General: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Eyes: Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart, and seek medical attention.

Ingestion: If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. If vomiting should occur spontaneously, keep victims head below their knees to prevent aspiration into the lungs.

Inhalation: Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Skin: Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

4.2 Most Important Symptoms/Effects, Acute and Delayed

Overview:

No specific symptom data available. Treat symptomatically. See Section 2 for further details.

Eyes: Causes serious eye irritation.

Ingestion: Not noted by mfg.

Inhalation: May cause drowsiness or dizziness.

Skin: Not noted by mfg.

Chronic Effects: Moderate CNS depression may be shown by giddiness, headache, dizziness, and nausea. If vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs, which can cause severe lung damage. Aspiration pneumonitis may be evidenced by coughing and cyanosis.

4.3 Indication of Immediate Medical Attention and Special Treatment Needed

No specific information provided by the manufacturer.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media

Alcohol resistant foam, carbon dioxide (CO₂), powder, and water spray.

Unsuitable extinguishing media: Do not use: water jet.

5.2 Specific Hazards Arising from the Substance or Mixture

Hazardous Decomposition: Burning may produce fumes of carbon dioxide, carbon monoxide, hydrogen cyanide, phenols, and nitrous oxides.

See Section 2 Precautionary Statement(s).

5.3 Special Protective Actions for Fire-Fighters

Volatile solvent constituent can readily form explosive or flammable mixtures in air. Vapors can flow along surfaces to distant ignition sources and flash back.

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire-fighting to enter drains or water ways.

ERG Guide No. 127

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

Put on appropriate personal protective equipment. See Section 8.

Remove sources of ignition. Do not turn lights or unprotected electrical equipment on or off. In case of major spill or spillage in a confined space, evacuate the area and check that solvent vapor levels are below the Lower Explosive Limit before re-entering.

6.2 Environmental Precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using the toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3 Methods and Materials for Containment and Cleaning Up

Handle as a flammable liquid. Remove all ignition sources. Soak up wet material on a non-combustible absorbent and place in a closed metal container.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for Safe Handling**

Ground and bond metal containers when dispensing. No smoking in areas of use or storage. Use only non-sparking tools near wet adhesive or solvent vapors. Solvent vapor is much heavier than air and can collect in dangerous concentrations in floor drains or low areas.

Store in cool, well-ventilated area away from any ignition sources and strong oxidizing agents. Keep containers tightly closed when not in use. Do not transfer to plastic containers.

Store in accordance with National Fire Prevention Association's publication NFPA 30, Flammable and Combustible Liquids. Code 29 CFR 1910.106 applies to the handling, storage, and use of flammable and combustible liquids.

See Section 2 Precautionary Statement(s).

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Incompatible materials: Strong oxidizing agents can cause spontaneous combustion.

See Section 2 Storage Statement(s).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters**

Exposure (Only components with established OEL are shown)

Component	Source	STEL	TWA
Acetone	ACGIH	750 ppm	500 ppm
	NIOSH	-	250 ppm (590 mg/m ³)
	OSHA	2400 mg/m ³	1000 ppm (2400 mg/m ³)
Zinc oxide	ACGIH	10 mg/m ³	2 mg/m ³
	OSHA	-	5 mg/m ³ (fume); 15 mg/m ³ (total dust); 5 mg/m ³ (resp. dust)

8.2 Appropriate Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits, suitable respiratory protection must be worn.

8.3 Appropriate Protection Measures, Including Personal Protective Equipment

Eye Protection: Wear safety with side shields to protect the eyes. An eye wash station is suggested as good workplace practice.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guidelines. Use an approved, full-face, supplied air respirator or a NIOSH approved positive pressure, self-contained breathing apparatus if these levels are exceeded.

Skin Protection: Overalls which cover the body, arms, and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Use neoprene, vinyl, or natural rubber gloves.

Other Work Practices: Eye wash fountain or bottles. Solvent insoluble barrier hand cream. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using the toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See Section 2 Precautionary Statement(s).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Color:	Tan
Odor:	Acetone
Melting Point/Freezing Point:	Not measured
Boiling Point [or Initial Boiling Point and Range]:	56.1 °C (133 °F)
Flammability:	Not applicable

Lower Explosion Limit:	2.2%
Upper Explosion Limit:	13.0%
Flash Point:	-20 °C (-4 °F) [TCC]
Auto-Ignition Temperature:	Not measured
Decomposition Temperature:	Not measured
pH:	Not measured
Kinematic Viscosity:	Not measured
Solubility (in water):	Nil
Partition Coefficient (n-octanol/water):	Not measured
Vapor Pressure:	Not measured
Density [or Relative Density]:	Not noted by mfg.
Relative Vapor Density:	Heavier than air
Particle Characteristics:	Not noted by mfg.
Odor Threshold:	Not measured
Evaporation Rate (Ether = 1):	Slower than ether
Specific Gravity (H₂O = 1):	0.9
VOC %:	Not applicable

SECTION IO: STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous polymerization will not occur.

10.2 Chemical Stability

Stable under normal circumstances.

10.3 Possibility of Hazardous Reactions

No data available.

10.4 Conditions to Avoid

Keep away from all sources of ignition or heat.

10.5 Incompatible Materials

Strong oxidizing agents can cause spontaneous combustion.

10.6 Hazardous Decomposition Products

Burning may produce fumes of carbon dioxide, carbon monoxide, hydrogen cyanide, phenols, and nitrous oxides.

SECTION II: TOXICOLOGICAL INFORMATION

Acute Toxicity:

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Only components with mfg. provided data are shown.

Acetone	a) acute toxicity	LC50 Inhalation (Dust/Mist), Rat = 50.10 mg/L/4h LC50 Inhalation (Vapor), Rat = 76.00 mg/L/4h LD50 Oral, Rat, Category: n/a = 5800.00 mg/kg LD50 Skin, Rabbit, Category: n/a = 7426.00 mg/kg
Chlorinated paraffin c22-30	a) acute toxicity	LD50 Oral, Rat = 11700.00 mg/kg
Salicylic acid	a) acute toxicity	LD50 Oral, Rat, Category: 4 = 891.00 mg/kg

LD50 Skin, Rabbit, Category: n/a = 10000.00 mg/kg

Zinc oxide a) acute toxicity LC50 Inhalation (Dust/Mist), Rat, Category: 5 = 5.70 mg/kg
LD50 Oral, Rat, Category: n/a > 5000.00 mg/kg

p-tert-Butyl phenol a) acute toxicity LC50 Inhalation (Dust/Mist), Rat, Category: n/a = 5.60 mg/L/4h
LD50 Oral, Rat, Category: 5 = 4000.00 mg/kg
LD50 Skin, Mammal, Category: 4 = 1580.00 mg/kg

Carcinogen Data:

Component	Source	Value
Acetone	ACGIH	A4
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
	NTP	Known: No; Suspected: No
	OSHA	Regulated Carcinogen: No
2-Propenenitrile, polymer with 1,3-butadiene	ACGIH	No established limit
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
	NTP	Known: No; Suspected: No
	OSHA	Regulated Carcinogen: No
Chlorinated paraffin	ACGIH	No established limit
	IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No
	NTP	Known: No; Suspected: Yes
	OSHA	Regulated Carcinogen: No
Formaldehyde, polymer with 4-(1,1-dimethylethyl)ph	ACGIH	No established limit
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
	NTP	Known: No; Suspected: No
	OSHA	Regulated Carcinogen: No
Formaldehyde, polymer with ammonia	ACGIH	No established limit
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
	NTP	Known: No; Suspected: No
	OSHA	Regulated Carcinogen: No
Salicylic acid	ACGIH	No established limit
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
	NTP	Known: No; Suspected: No
	OSHA	Regulated Carcinogen: No
Zinc oxide	ACGIH	No established limit
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
	NTP	Known: No; Suspected: No
	OSHA	Regulated Carcinogen: No
p-tert-Butyl phenol	ACGIH	No established limit
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No

NTP Known: No; Suspected: No
 OSHA Regulated Carcinogen: No

Classification	Category	Hazard Description
Acute toxicity (oral)	-	Not applicable
Acute toxicity (dermal)	-	Not applicable
Acute toxicity (inhalation)	-	Not applicable
Skin corrosion/irritation	-	Not applicable
Serious eye damage/irritation	2A	Causes serious eye damage.
Respiratory sensitization	-	Not applicable
Skin sensitization	-	Not applicable
Germ cell mutagenicity	-	Not applicable
Carcinogenicity	-	Not applicable
Reproductive toxicity	2	Suspected of damaging the unborn child.
STOT-single exposure	3	May cause drowsiness or dizziness.
STOT-repeated exposure	-	Not applicable
Aspiration hazard	-	Not applicable

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Harmful to aquatic life with long lasting effects.

Aquatic Ecotoxicity (only components with mfg. provided data are shown)

Component	EC50 crustacea (48h)	ErC50 algae (96h)	LC50 fish (96h)
Acetone	D. pulex 8800.00 mg/L	P. subcapitata 7000.00 mg/L	P. promelas 8120.00 mg/L
Chlorinated paraffin	D. magna 102.00 mg/L	Not available	L. macrochirus 300.00 mg/L
Salicylic acid	D. magna 105.00 mg/L	Not available	L. idus 90.00 mg/L
Zinc oxide	D. magna 101.00 mg/L	Not available	Not available
p-tert-Butyl phenol	D. magna 3.90 mg/L	Not available	P. promelas 5.14 mg/L

12.2 Persistence and Degradability

There is no data available on the preparation itself.

12.3 Bioaccumulative Potential

Not measured.

12.4 Mobility in Soil

No data available.

12.5 Other Adverse Effects

No data available

Results of PBT and vPvB Assessment: This product contains no PBT/vPvB chemicals.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Disposal Methods**

Dispose of in accordance with all applicable federal, state, and local regulations. Consult authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

UN Number:	DOT/ADR UN1133	IMO/IMDG UN1133	ICAO/IATA UN1133
UN Proper Shipping Name:	Adhesives, containing a flammable liquid, 3, II	Adhesives, containing a flammable liquid, 3, II	Adhesives, containing a flammable liquid, 3, II
Transport Hazard Class(es):	DOT Hazard Class: 3	IMDG: 3 (sub-class: n/a)	Air Class: 3
Packing Group:	II	II	II
Environmental Hazards:	Marine Pollutant: No		
Special Precautions for User:	Not applicable		

SECTION 15: REGULATORY INFORMATION

Regulatory Overview: The regulatory data in Section 15 is not intended to be all-inclusive. Only selected regulations are represented.

Toxic Substance Control Act (TSCA): All components of this material are either listed or exempt from listing in the TSCA Inventory.

US EPA Tier II Hazards:	Fire:	Yes
	Sudden Release of Pressure:	No
	Reactive:	No
	Immediate (Acute):	Yes
	Delayed (Chronic):	Yes

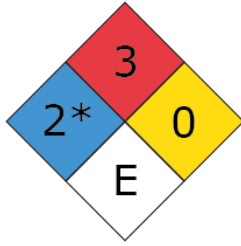
EPCRA 302 Extremely Hazardous:	Cresol, Phenol
EPCRA 313 Toxic Chemicals:	Zinc oxide

Proposition 65 – Carcinogens (>0.0%):	1,3 Butadiene; 4-Vinylcyclohexene; Benzene; Cadmium; Formaldehyde; Lead; Propenenitrile
Proposition 65 – Developmental Toxins (>0.0%):	1,3 Butadiene; Benzene; Lead
Proposition 65 – Female Reproductive Toxins (>0.0%):	1,3 Butadiene; 4-Vinylcyclohexene; Lead
Proposition 65 – Male Reproductive Toxins (>0.0%):	1,3 Butadiene; Benzene; Cadmium; Lead

SECTION 16: OTHER INFORMATION

Additional Classification Information:

NFPA:



Full Text of GHS Hazard Statements from Section 3:

H225	Highly flammable liquid and vapor.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361D	Suspected of damaging the unborn child.
H361F	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Disclaimer: Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. This information relates only to the product designated herein, and does not relate to its use in combination with other materials or in any other process. The manufacturer makes no representations and assumes no liability for any direct, incidental, or consequential damages resulting from its use. The information herein is presented in good faith and based upon data from manufacturers or technical sources, and is believed to be accurate as of the revision date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State, or local laws. Conditions of use are beyond Lonseal's control and therefore users are responsible to verify this data under their own conditions to determine suitability for their purpose. Users of this product must comply with all applicable health and safety laws, regulations, and orders. Users of this product assume all risks of use, handling, and disposal, or from use of the information contained within this document.

General Statements:

Keep out of the reach of children.

For professional or industrial use only.

If you cannot read, or do not understand all directions, cautions, and warnings for this product, DO NOT use.

Abbreviations (may not actually appear within document):

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international de marchandises Dangereuses par Route (European agreement for the international carriage of Dangerous goods by Road)
Asp.	Aspiration
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BEI	Biological Exposure Indices
bw	Body Weight
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR	Code of Federal Regulations
CLP	Classification, Labeling, and Packaging
CMR	Carcinogenicity, Mutagenicity, and Toxicity for Reproduction
CNS	Central Nervous System
cSt	Centistokes
d	Day(s)
Dam.	Damage
DIN	Deutsches Institut für Normung (German Institute for Standardization)

DNEL	Derived No Effect Level
DOT	Department of Transportation
EC	European Commission
EC0	Effective Concentration for 0% of Test Population
EC10	Effective Concentration for 10% of Test Population
EC50	Effective Concentration for 50% of Test Population
EC90	Effective Concentration for 90% of Test Population
EC100	Effective Concentration for 100% of Test Population
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ErC20	Effective Concentration for 20% of Test Population
ErC50	Effective Concentration for 50% of Test Population
ERG	Emergency Response Guidebook
EU	European Union
Flam.	Flammable
g	Gram(s)
GHS	Globally Harmonized System
h	Hour(s)
Haz.	Hazard
HMIS	Hazardous Materials Identification System
hPa	Hectopascal(s)
hr.	Hour(s)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IOELV	Indicative Occupational Exposure Limit Values
Irrit.	Irritation
IUCLID	International Uniform Chemical Information Database
kg	Kilogram(s)
KOW	n-Octanol/Water Partition Coefficient
L	Liter(s)
lbs.	pounds
LC50	Lethal Concentration for 50% of Test Population
LC100	Lethal Concentration for 100% of Test Population
LD50	Lethal Dose for 50% of Test Population
Liq.	Liquid
LOEC	Lowest Observed Effect Concentration
LTEL	Long-Term Exposure Limit
m	Meter(s)
MAK	Maximale Arbeitsplatz-Konzentration (Maximum Workplace Concentration)
MARPOL	Maritime Pollution
mfg.	Manufacturer
mg	Milligram(s)
min	Minute(s)
mL	Milliliter(s)
mPa	Millipascal(s)
Muta.	Germ Cell Mutagenicity
n/a	Not Applicable or Not Available
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NOEC	No Observed Effect Concentration
NTP	National Toxicology Program
n.o.s.	Not Otherwise Specified
OEL	Occupational Exposure Limits
OSHA	Occupational Safety and Health Administration
Pa	Pascal(s)
Pa-s	Pascal second(s)

PBT	Persistent Bioaccumulative and Toxic
PEL	Permissible Exposure Limit
PNEC	Predicted No Effect Concentration
PPE	Personal Protective Equipment
ppm	Parts Per Million
PVC	Polyvinyl Chloride
RCRA	Resource Conservation and Recovery Act
Repr.	Reproductive
Respir.	Respiratory
RQ	Reportable Quantities
RTK	Right-to-Know
SDS	Safety Data Sheet
Sens.	Sensitization
STEL	Short-Term Exposure Limit
STOT	Specific Target Organ Toxicity
STOT RE	Specific Target Organ Toxicity, Repeat Exposure
STOT SE	Specific Target Organ Toxicity, Single Exposure
TCC	Tagliabue Closed Cup
THF	Tetrahydrofuran
TLV	Threshold Limit Value
Tox.	Toxicity
TWA	Time Weighted Average
UN	United Nations
US	United States
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace Exposure Limit
WHMIS	Workplace Hazardous Materials Information System
ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international de marchandises Dangereuses par Route (European agreement for the international carriage of Dangerous goods by Road)
Asp.	Aspiration
ATE	Acute Toxicity Estimate
bw	Body Weight
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service
CFR	Code of Federal Regulations
CLP	Classification, Labeling, and Packaging
CMR	Carcinogenicity, Mutagenicity, and Toxicity for Reproduction
CNS	Central Nervous System
cSt	Centistokes
d	Day(s)
Dam.	Damage
DIN	Deutsches Institut für Normung (German Institute for Standardization)
DNEL	Derived No Effect Level
DOT	Department of Transportation
EC	European Commission
EC0	Effective Concentration for 0% of Test Population
EC10	Effective Concentration for 10% of Test Population
EC50	Effective Concentration for 50% of Test Population
EC90	Effective Concentration for 90% of Test Population
EC100	Effective Concentration for 100% of Test Population
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ErC50	Effective Concentration for 50% of Test Population
ERG	Emergency Response Guidebook
EU	European Union
Flam.	Flammable
g	Gram(s)
GHS	Globally Harmonized System
h	Hour(s)

Haz.	Hazard
HMIS	Hazardous Materials Identification System
hPa	Hectopascal(s)
hr.	Hour(s)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IOELV	Indicative Occupational Exposure Limit Values
Irrit.	Irritation
IUCLID	International Uniform Chemical Information Database
kg	Kilogram(s)
L	Liter(s)
lbs.	pounds
LC50	Lethal Concentration for 50% of Test Population
LC100	Lethal Concentration for 100% of Test Population
LD50	Lethal Dose for 50% of Test Population
Liq.	Liquid
LOEC	Lowest Observed Effect Concentration
LTEL	Long-Term Exposure Limit
m	Meter(s)
MAK	Maximale Arbeitsplatz-Konzentration (Maximum Workplace Concentration)
MARPOL	Maritime Pollution
mfg.	Manufacturer
mg	Milligram(s)
mL	Milliliter(s)
mPa	Millipascal(s)
Muta.	Germ Cell Mutagenicity
n/a	Not Applicable or Not Available
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NOEC	No Observed Effect Concentration
NTP	National Toxicology Program
n.o.s.	Not Otherwise Specified
OEL	Occupational Exposure Limits
OSHA	Occupational Safety and Health Administration
Pa	Pascal(s)
PBT	Persistent Bioaccumulative and Toxic
PEL	Permissible Exposure Limit
PNEC	Predicted No Effect Concentration
PPE	Personal Protective Equipment
ppm	Parts Per Million
PVC	Polyvinyl Chloride
Repr.	Reproductive
Respir.	Respiratory
RQ	Reportable Quantities
RTK	Right-to-Know
SDS	Safety Data Sheet
Sens.	Sensitization
STEL	Short-Term Exposure Limit
STOT	Specific Target Organ Toxicity
STOT RE	Specific Target Organ Toxicity, Repeat Exposure
STOT SE	Specific Target Organ Toxicity, Single Exposure
TCC	Tagliabue Closed Cup
THF	Tetrahydrofuran
TLV	Threshold Limit Value
Tox.	Toxicity
TWA	Time Weighted Average

UN	United Nations
US	United States
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace Exposure Limit
WHMIS	Workplace Hazardous Materials Information System

Revision History:

6.1.2015	Initial SDS Release. SDS provided by mfg. was incorporated into Lonseal's letterhead/layout. Items contained within Section 16, from "DISCLAIMER" and below, are exclusive to Lonseal's version of the SDS.
7.8.2015	Added missing precautionary statements P262 and P270.
8.5.2019	SDS formatting updated. Minor grammar and typo corrections. Tables in Sections 3, 8.1, 11, and 12.1 revised to match the most recent SDS provided by the manufacturer. NFPA symbol added under Section 16. Removed unnecessary paragraph from Section 16.
2.18.2020	Minor typo corrections.
3.13.2020	Minor formatting change and typo correction to table in Section 12. Updated abbreviations list under Section 16.
7.14.2021	Added new product code ZAD40055 in Section 1.1.
2.23.2023	Information updated to match the most current SDS from the manufacturer.
6.24.2026	Added new product code ZAD4005 in Section 1.1. Lonseal's address updated.