

1. Identification

Product identifier **S-0170B Lacquer Thinner**

Other means of identification

Product code 0300585

Recommended use Solvent

Recommended restrictions None known.

Manufacturer information Superior Oil Company, Inc.
1402 North Capitol Avenue, Suite #100
Indianapolis, IN 46202 US
(317) 781-4400
(317) 781-4400

Distributed By:
SAL Chemical
3036 Birch Drive
Weirton, WV 26062
304-748-8200

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 1
Specific target organ toxicity, single exposure	Category 3 narcotic effects	
Specific target organ toxicity, repeated exposure	Category 2	
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word

Danger

Hazard statement

H225	Highly flammable liquid and vapor.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure

Precautionary statement

Prevention

P262	Do not get in eyes, on skin, or on clothing.
P261	Avoid breathing vapors or mist
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P310	Immediately call a poison center/doctor.
P303 + P361 + P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P304 + P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P312	Call a poison center/doctor if you feel unwell.
P305 + P351 + P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Toluene		108-88-3	40-60
2-Propanone		67-64-1	10-30
2-Butanone		78-93-3	0.1-10
2-Butoxyethanol		111-76-2	0.1-10
2-Methyl-4-Pentanone		108-10-1	0.1-10
Acetic Acid, Butyl Ester		123-86-4	0.1-10
Ethyl Benzene		100-41-4	0.1-10
Methanol		67-56-1	0.1-10
Xylene (Mixed Isomers)		1330-20-7	0.1-10

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-Butanone (CAS 78-93-3)	PEL	590 mg/m ³ 200 ppm
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m ³ 50 ppm
2-Methyl-4-Pentanone (CAS 108-10-1)	PEL	410 mg/m ³ 100 ppm
2-Propanone (CAS 67-64-1)	PEL	2400 mg/m ³ 1000 ppm
Acetic Acid, Butyl Ester (CAS 123-86-4)	PEL	710 mg/m ³ 150 ppm
Ethyl Benzene (CAS 100-41-4)	PEL	435 mg/m ³ 100 ppm
Methanol (CAS 67-56-1)	PEL	260 mg/m ³ 200 ppm
Xylene (Mixed Isomers) (CAS 1330-20-7)	PEL	435 mg/m ³ 100 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling TWA	300 ppm 200 ppm

**US. ACGIH Threshold Limit Values
Components**

Components	Type	Value
2-Butanone (CAS 78-93-3)	STEL	300 ppm
	TWA	200 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm
2-Methyl-4-Pentanone (CAS 108-10-1)	STEL	75 ppm
	TWA	20 ppm
2-Propanone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
Acetic Acid, Butyl Ester (CAS 123-86-4)	STEL	200 ppm
	TWA	150 ppm
Ethyl Benzene (CAS 100-41-4)	TWA	20 ppm
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (Mixed Isomers) (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards
Components**

Components	Type	Value
2-Butanone (CAS 78-93-3)	STEL	885 mg/m ³ 300 ppm
	TWA	590 mg/m ³ 200 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m ³ 5 ppm
2-Methyl-4-Pentanone (CAS 108-10-1)	STEL	300 mg/m ³ 75 ppm
	TWA	205 mg/m ³ 50 ppm
2-Propanone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm
Acetic Acid, Butyl Ester (CAS 123-86-4)	STEL	950 mg/m ³ 200 ppm
	TWA	710 mg/m ³ 150 ppm
Ethyl Benzene (CAS 100-41-4)	STEL	545 mg/m ³ 125 ppm
	TWA	435 mg/m ³ 100 ppm
Methanol (CAS 67-56-1)	STEL	325 mg/m ³ 250 ppm
	TWA	260 mg/m ³ 200 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m ³ 150 ppm
	TWA	375 mg/m ³ 100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Butanone (CAS 78-93-3)	2 mg/l	MEK	Urine	*
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
2-Methyl-4-Pentanone (CAS 108-10-1)	1 mg/l	Methyl isobutyl ketone	Urine	*
2-Propanone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Ethyl Benzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*
Xylene (Mixed Isomers) (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Methanol (CAS 67-56-1)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2)	Skin designation applies.
Methanol (CAS 67-56-1)	Skin designation applies.
Toluene (CAS 108-88-3)	Skin designation applies.

US - Tennessee OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Methanol (CAS 67-56-1)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methanol (CAS 67-56-1)	Can be absorbed through the skin.
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US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Methanol (CAS 67-56-1)	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
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Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Form	Liquid.
Color	Colorless.
Odor	Typical Solvent.
pH	Not available.
Melting point/freezing point	Not determined
Initial boiling point and boiling range	132.8 °F (56 °C) estimated
Flash point	-4.0 °F (-20.0 °C) Lowest Flashing component
Evaporation rate	< 1 (BuAc = 1)
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1 % estimated
Flammability limit - upper (%)	36.5 % estimated
Vapor pressure	78.38 hPa @ 20 Deg. C (1 hPa = 0.75006 mmHg)
Vapor density	> 1 (Air = 1)
Solubility(ies)	
Solubility (water)	Appreciable.
Auto-ignition temperature	Not determined
Other information	
Percent volatile	100 %
Pounds per gallon	7.016 lb/gal
Specific gravity	0.842
VOC (Weight %)	85 % (approx)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
Chemical stability	Material is stable under normal conditions. Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Suitable precautions should be utilized if using this product at temperatures above the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information**Information on likely routes of exposure**

Inhalation	May cause damage to organs by inhalation. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
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Skin contact Harmful in contact with skin. Causes skin irritation.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Eye contact Causes serious eye irritation.

Ingestion Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Harmful in contact with skin. Harmful if swallowed. Narcotic effects.

Components	Species	Test Results
2-Butanone (CAS 78-93-3)		
Acute		
Dermal		
LD50	Rabbit	> 8000 mg/kg
Inhalation		
LC50	Mouse	11000 ppm, 45 Minutes
	Rat	11700 ppm, 4 Hours
Oral		
LD50	Mouse	670 mg/kg
	Rat	2300 - 3500 mg/kg
Other		
LD50	Mouse	1660 g/kg, 24 Hours
	Rat	12290 mg/kg, 24 Hours
2-Butoxyethanol (CAS 111-76-2)		
Acute		
Dermal		
LD50	Rabbit	400 mg/kg
Inhalation		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
Oral		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg
	Rat	560 mg/kg
2-Methyl-4-Pentanone (CAS 108-10-1)		
Acute		
Dermal		
LD50	Rabbit	> 16000 mg/kg
Inhalation		
LC50	Rat	8.2 mg/l, 4 Hours
Oral		
LD50	Rat	2080 mg/kg
2-Propanone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	20000 mg/kg

Components	Species	Test Results
		20 ml/kg
Inhalation		
LC50	Rat	76 mg/l, 4 Hours 50.1 mg/l, 8 Hours
Oral		
LD50	Mouse	3000 mg/kg
	Rabbit	5340 mg/kg
	Rat	5800 mg/kg
Other		
LD50	Mouse	1297 mg/kg
	Rat	5500 mg/kg
Acetic Acid, Butyl Ester (CAS 123-86-4)		
Acute		
Inhalation		
LC50	Wistar rat	160 mg/l, 4 Hours
Oral		
LD50	Rat	14000 mg/kg
Ethyl Benzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	17800 mg/kg
Oral		
LD50	Rat	3500 mg/kg
Methanol (CAS 67-56-1)		
Acute		
Dermal		
LD50	Rabbit	15800 mg/kg
Inhalation		
LC50	Cat	85.41 mg/l, 4.5 Hours 43.68 mg/l, 6 Hours
	Rat	64000 ppm, 4 Hours 87.5 mg/l, 6 Hours
Oral		
LD50	Dog	8000 mg/kg
	Monkey	2 g/kg
	Mouse	7300 mg/kg
	Rabbit	14.4 g/kg
	Rat	5628 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	12124 mg/kg 14.1 ml/kg
Inhalation		
LC50	Mouse	5320 ppm, 8 Hours 400 ppm, 24 Hours
	Rat	26700 ppm, 1 Hours

Components	Species	Test Results
		12200 ppm, 2 Hours
		8000 ppm, 4 Hours
Oral		
LD50	Rat	2.6 g/kg
Other		
LD50	Mouse	59 mg/kg
	Rat	1332 mg/kg
Xylene (Mixed Isomers) (CAS 1330-20-7)		
Acute		
Dermal		
LD50	Rabbit	> 43 g/kg
Inhalation		
LC50	Mouse	3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 Hours
Oral		
LD50	Mouse	1590 mg/kg
	Rat	3523 - 8600 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
2-Methyl-4-Pentanone (CAS 108-10-1)	2B Possibly carcinogenic to humans.
Ethyl Benzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (Mixed Isomers) (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure Causes damage to organs. May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects May cause damage to organs through prolonged or repeated exposure. May be harmful if absorbed through skin. Prolonged inhalation may be harmful.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
2-Butanone (CAS 78-93-3)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 4025 - 6440 mg/l, 48 hours
Fish	LC50	Sheepshead minnow (<i>Cyprinodon variegatus</i>) > 400 mg/l, 96 hours
2-Butoxyethanol (CAS 111-76-2)		
Aquatic		
Fish	LC50	Inland silverside (<i>Menidia beryllina</i>) 1250 mg/l, 96 hours
2-Methyl-4-Pentanone (CAS 108-10-1)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 492 - 593 mg/l, 96 hours
2-Propanone (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (<i>Oncorhynchus mykiss</i>) 4740 - 6330 mg/l, 96 hours
Acetic Acid, Butyl Ester (CAS 123-86-4)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 17 - 19 mg/l, 96 hours
Ethyl Benzene (CAS 100-41-4)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 7.5 - 11 mg/l, 96 hours
Methanol (CAS 67-56-1)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) > 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 100 mg/l, 96 hours
Toluene (CAS 108-88-3)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (<i>Oncorhynchus kisutch</i>) 8.11 mg/l, 96 hours
Xylene (Mixed Isomers) (CAS 1330-20-7)		
Aquatic		
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) 7.711 - 9.591 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-Butanone	0.29
	0.3
2-Butoxyethanol	0.83
2-Methyl-4-Pentanone	1.31
2-Propanone	-0.24
Acetic Acid, Butyl Ester	2.3, (measured)
Ethyl Benzene	3.15

Partition coefficient n-octanol / water (log Kow)

Methanol	-0.77
Toluene	2.73
Xylene (Mixed Isomers)	3.12
	3.12 - 3.2

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information**DOT NON-BULK / BULK:**

UN number	1263
Proper shipping name	Paint Related Material
Hazard class	3
Packing group	II
ERG code	128

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butanone (CAS 78-93-3)	Listed.
2-Butoxyethanol (CAS 111-76-2)	Listed.
2-Methyl-4-Pentanone (CAS 108-10-1)	Listed.
2-Propanone (CAS 67-64-1)	Listed.
Acetic Acid, Butyl Ester (CAS 123-86-4)	Listed.
Ethyl Benzene (CAS 100-41-4)	Listed.
Methanol (CAS 67-56-1)	Listed.
Toluene (CAS 108-88-3)	Listed.
Xylene (Mixed Isomers) (CAS 1330-20-7)	Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Yes

Hazardous chemical**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Toluene	108-88-3	40-60
2-Butoxyethanol	111-76-2	0.1-10
2-Methyl-4-Pentanone	108-10-1	0.1-10
Ethyl Benzene	100-41-4	0.1-10

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Methanol	67-56-1	0.1-10
Xylene (Mixed Isomers)	1330-20-7	0.1-10

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

2-Methyl-4-Pentanone (CAS 108-10-1)
 Ethyl Benzene (CAS 100-41-4)
 Methanol (CAS 67-56-1)
 Toluene (CAS 108-88-3)
 Xylene (Mixed Isomers) (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))**

2-Butanone (CAS 78-93-3)
 2-Propanone (CAS 67-64-1)
 Toluene (CAS 108-88-3)

DEA Essential Chemical Code Number

2-Butanone (CAS 78-93-3)	6714
2-Methyl-4-Pentanone (CAS 108-10-1)	6715
2-Propanone (CAS 67-64-1)	6532
Toluene (CAS 108-88-3)	6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

2-Butanone (CAS 78-93-3)	35 %WV
2-Methyl-4-Pentanone (CAS 108-10-1)	35 %WV
2-Propanone (CAS 67-64-1)	35 %WV
Toluene (CAS 108-88-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

2-Butanone (CAS 78-93-3)	6714
2-Methyl-4-Pentanone (CAS 108-10-1)	6715
2-Propanone (CAS 67-64-1)	6532
Toluene (CAS 108-88-3)	594

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

2-Butanone (CAS 78-93-3)	Low priority
2-Methyl-4-Pentanone (CAS 108-10-1)	Low priority
2-Propanone (CAS 67-64-1)	Low priority
Acetic Acid, Butyl Ester (CAS 123-86-4)	Low priority

US state regulations**US - New Jersey RTK - Substances: Listed substance**

2-Butanone (CAS 78-93-3)
 2-Butoxyethanol (CAS 111-76-2)
 2-Methyl-4-Pentanone (CAS 108-10-1)
 2-Propanone (CAS 67-64-1)
 Acetic Acid, Butyl Ester (CAS 123-86-4)
 Ethyl Benzene (CAS 100-41-4)
 Methanol (CAS 67-56-1)
 Toluene (CAS 108-88-3)
 Xylene (Mixed Isomers) (CAS 1330-20-7)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-Butanone (CAS 78-93-3)
 2-Butoxyethanol (CAS 111-76-2)
 2-Methyl-4-Pentanone (CAS 108-10-1)
 2-Propanone (CAS 67-64-1)

Ethyl Benzene (CAS 100-41-4)
Methanol (CAS 67-56-1)
Toluene (CAS 108-88-3)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. Massachusetts RTK - Substance List

2-Butanone (CAS 78-93-3)
2-Butoxyethanol (CAS 111-76-2)
2-Methyl-4-Pentanone (CAS 108-10-1)
2-Propanone (CAS 67-64-1)
Acetic Acid, Butyl Ester (CAS 123-86-4)
Ethyl Benzene (CAS 100-41-4)
Methanol (CAS 67-56-1)
Toluene (CAS 108-88-3)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. New Jersey Worker and Community Right-to-Know Act

2-Butoxyethanol (CAS 111-76-2)
2-Methyl-4-Pentanone (CAS 108-10-1)
Ethyl Benzene (CAS 100-41-4)
Methanol (CAS 67-56-1)
Toluene (CAS 108-88-3)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. Pennsylvania RTK - Hazardous Substances

2-Butanone (CAS 78-93-3)
2-Butoxyethanol (CAS 111-76-2)
2-Methyl-4-Pentanone (CAS 108-10-1)
2-Propanone (CAS 67-64-1)
Acetic Acid, Butyl Ester (CAS 123-86-4)
Ethyl Benzene (CAS 100-41-4)
Methanol (CAS 67-56-1)
Toluene (CAS 108-88-3)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. Pennsylvania Worker and Community Right-to-Know Law

2-Butanone (CAS 78-93-3)
2-Butoxyethanol (CAS 111-76-2)
2-Methyl-4-Pentanone (CAS 108-10-1)
2-Propanone (CAS 67-64-1)
Acetic Acid, Butyl Ester (CAS 123-86-4)
Ethyl Benzene (CAS 100-41-4)
Methanol (CAS 67-56-1)
Toluene (CAS 108-88-3)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. Rhode Island RTK

2-Butanone (CAS 78-93-3)
2-Butoxyethanol (CAS 111-76-2)
2-Methyl-4-Pentanone (CAS 108-10-1)
2-Propanone (CAS 67-64-1)
Acetic Acid, Butyl Ester (CAS 123-86-4)
Ethyl Benzene (CAS 100-41-4)
Methanol (CAS 67-56-1)
Toluene (CAS 108-88-3)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

2-Methyl-4-Pentanone (CAS 108-10-1)	Listed: November 4, 2011
Ethyl Benzene (CAS 100-41-4)	Listed: June 11, 2004

US - California Proposition 65 - CRT: Listed date/Developmental toxin

2-Methyl-4-Pentanone (CAS 108-10-1)	Listed: March 28, 2014
Methanol (CAS 67-56-1)	Listed: March 16, 2012

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 08-19-2014

Revision date 02-07-2017

Version # 03

Disclaimer

Superior Oil Company, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This information is based on data available to us and is accurate and reliable to the best of our knowledge at the time of printing. However, no warranty is expressed or implied regarding the accuracy or completeness of the information contained herein. Final determination of the suitability of this material for the use contemplated is the sole responsibility of the user. Buyer assumes all risk and liabilities. Buyer accepts and uses this material on these conditions.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.