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29 CFR 1910.1200 (OSHA HazCom 2012)

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

### Product identifier

Trade name

LOW-VOC BONDING ADHESIVE

### Recommended use of the chemical and restrictions on use

<b>Details of the supplier of the safety data sheet</b> American Hydrotech, Inc. 303 East Ohio Street, Suite 2700 Chicago, IL 60611 www.hydrotechusa.com	<b>Emergency telephone number</b> PERS #11540: 1-800-633-8253
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## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

- Flammable liquids : Category 2
- Eye irritation : Category 2A
- Reproductive toxicity : Category 2
- Specific target organ systemic toxicity - single exposure : Category 3 (Respiratory system, Central nervous system)
- Specific target organ systemic toxicity - repeated exposure (Inhalation) : Category 2 (Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision))

### GHS Label element

Hazard pictograms



Signal Word

: Danger

Hazard Statements

: Highly flammable liquid and vapor.  
Causes serious eye irritation.

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May cause respiratory irritation.  
 May cause drowsiness or dizziness.  
 Suspected of damaging fertility or the unborn child.  
 May cause damage to organs (Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision)) through prolonged or repeated exposure if inhaled.

**Precautionary Statements**

**Prevention:**  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Keep container tightly closed.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
 Wash skin thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF exposed or concerned: Get medical advice/ attention.  
 If eye irritation persists: Get medical advice/ attention.  
 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**  
 Store in a well-ventilated place. Keep container tightly closed.  
 Store in a well-ventilated place. Keep cool.  
 Store locked up.

**Disposal:**  
 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

Static Accumulating liquid

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

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Chemical nature : Static Accumulator

Chemical nature : Defatter

**Hazardous components**

Chemical Name	CAS-No.	Classification	Concentration (%)
TERT-BUTYL ACETATE	540-88-5	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT SE 3; H335, H336	46.26
ACETONE	67-64-1	Flam. Liq. 2; H225 Eye Irrit. 2A; H319 STOT SE 3; H336	21.77
TOLUENE	108-88-3	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 Repr. 2; H361 STOT SE 3; H336 STOT RE 2; H373 Asp. Tox. 1; H304	4.78
XYLENE	1330-20-7	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335, H336 Asp. Tox. 1; H304	2.16

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MAGNESIUM OXIDE	1309-48-4	Not a hazardous substance or mixture.	1.30
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#### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Move to fresh air.  
Keep patient warm and at rest.  
If unconscious place in recovery position and seek medical advice.  
Consult a physician after significant exposure.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.  
If on skin, rinse well with water.  
Wash contaminated clothing before re-use.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.
- If swallowed : Obtain medical attention.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion.  
Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.  
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:  
redness of the skin  
stomach or intestinal upset (nausea, vomiting, diarrhea)  
irritation (nose, throat, airways)  
temporary changes in mood and behavior  
effects on memory  
Shortness of breath

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confusion  
 irregular heartbeat  
 Causes serious eye irritation.  
 May cause respiratory irritation.  
 May cause drowsiness or dizziness.  
 Suspected of damaging fertility or the unborn child.  
 May cause damage to organs through prolonged or repeated exposure if inhaled.

Notes to physician : No hazards which require special first aid measures.

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## SECTION 5. FIREFIGHTING MEASURES

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

Water spray  
 Foam  
 Alcohol-resistant foam  
 Carbon dioxide (CO<sub>2</sub>)  
 Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.  
 Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
 Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : acrid smoke and fumes  
 carbon dioxide and carbon monoxide  
 hydrogen chloride  
 Carbon monoxide  
 Organic acids  
 Aldehydes  
 Alcohols  
 Hydrocarbons  
 phenols  
 magnesium oxide fumes

Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
 Use a water spray to cool fully closed containers.

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Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Remove all sources of ignition.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
- Other information : Comply with all applicable federal, state, and local regulations.  
Suppress (knock down) gases/vapours/mists with a water spray jet.

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## SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Open drum carefully as content may be under pressure.  
Avoid formation of aerosol.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Do not breathe vapours/dust.  
Do not smoke.  
Container hazardous when empty.  
Take precautionary measures against static discharges.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
Smoking, eating and drinking should be prohibited in the application area.  
For personal protection see section 8.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.

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No smoking.  
Electrical installations / working materials must comply with  
the technological safety standards.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
TERT-BUTYL ACETATE	540-88-5	TWA	200 ppm	ACGIH
		REL	200 ppm 950 mg/m3	NIOSH/GUID E
		PEL	200 ppm 950 mg/m3	OSHA_TRA NS
ACETONE	67-64-1	TWA	500 ppm	ACGIH
		STEL	750 ppm	ACGIH
		REL	250 ppm 590 mg/m3	NIOSH/GUID E
		PEL	1,000 ppm 2,400 mg/m3	OSHA_TRA NS
		TWA	250 ppm	ACGIHLIS_P
		STEL	500 ppm	ACGIHLIS_P
TOLUENE	108-88-3	TWA	750 ppm 1,800 mg/m3	Z1A
		STEL	1,000 ppm 2,400 mg/m3	Z1A
		TWA	20 ppm	ACGIH
		REL	100 ppm 375 mg/m3	NIOSH/GUID E
		STEL	150 ppm 560 mg/m3	NIOSH/GUID E
		TWA	200 ppm	OSHA/Z2
XYLENE	1330-20-7	Ceiling	300 ppm	OSHA/Z2
		MAX. CONC	500 ppm	OSHA/Z2
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
MAGNESIUM OXIDE	1309-48-4	PEL	100 ppm 435 mg/m3	OSHA_TRA NS
		REL	100 ppm 435 mg/m3	NIOSH/GUID E
		STEL	150 ppm 655 mg/m3	NIOSH/GUID E
		TWA (Inhalable fraction.)	10 mg/m3 Inhalable fraction.	PY OEL
		TWA	10 mg/m3 Inhalable fraction.	ACGIH

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		PEL	15 mg/m3 Total particulate.	OSHA_TRANS
ETHYL BENZENE	100-41-4	TWA	20 ppm	ACGIH
		REL	100 ppm 435 mg/m3	NIOSH/GUIDE
		STEL	125 ppm 545 mg/m3	NIOSH/GUIDE
		PEL	100 ppm 435 mg/m3	OSHA_TRANS
TALC	14807-96-6	TWA	2 mg/m3 Respirable fraction.	ACGIH
		REL	2 mg/m3 Respirable.	NIOSH/GUIDE
		TWA	0.1 mg/m3 Respirable.	Z3
		TWA	0.3 mg/m3 Total dust.	Z3

**Biological occupational exposure limits**

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
ACETONE	67-64-1	acetone	Urine	Sampling time: End of shift.	50 mg/l	
Remarks:	Nonspecific					
TOLUENE	108-88-3	o-Cresol, with hydrolysis	Creatinine in urine	Sampling time: End of shift.	0.3 mg/g	
Remarks:	Background					
		toluene	Urine	Sampling time: End of shift.	0.03 mg/l	
		toluene	Blood	Sampling time: Prior to last shift of work week.	0.02 mg/l	
XYLENE	1330-20-7	Methylhippuric acids	Creatinine in urine	Sampling time: End of shift.	1.5 g/g	

**Engineering measures**

: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.



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### Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
- A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.
- Hand protection  
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.
- Skin and body protection : Wear as appropriate:  
impervious clothing  
Safety shoes  
Flame-resistant clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
Wear resistant gloves (consult your safety equipment supplier).
- Hygiene measures : Wash hands before breaks and at the end of workday.  
When using do not eat or drink.  
When using do not smoke.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : liquid
- Colour : yellow
- Odour : No data available
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Boiling point/boiling range : 133 °F / 56 °C  
(1,013.232 hPa)  
Calculated Phase Transition Liquid/Gas

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Flash point	: -4 °F / -20 °C Calculated Flash Point
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Flammability (liquids)	: Static Accumulating liquid
Flammability (liquids) Upper explosion limit	: 12.8 %(V) GLP: Calculated Explosive Limit
Lower explosion limit	: 1 %(V) GLP: Calculated Explosive Limit
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: 0.906 (77.00 °F)
Density	: 0.906 g/cm <sup>3</sup> (77.00 °F)
Solubility(ies) Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n- octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity Viscosity, dynamic	: 2,500 mPa.s
Viscosity, kinematic	: No data available
Oxidizing properties	: No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air.

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Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Acids  
alkalis  
Amines  
Ammonia  
chlorine trifluoride  
halogens  
nitrates  
Oxidizing agents  
peroxides  
phosphorus pentachloride  
Reducing agents  
strong alkalis

Hazardous decomposition products : carbon dioxide and carbon monoxide  
Hydrocarbons

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure : Inhalation  
Skin contact  
Eye Contact  
Ingestion

**Acute toxicity**

Not classified based on available information.

**Components:****TERT-BUTYL ACETATE:**

Acute oral toxicity : LD 50 (Rat, male): 4,100 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 4211 ppm  
Exposure time: 6 h  
Test atmosphere: vapour  
Assessment: The component/mixture is classified as acute inhalation toxicity, category 4.

Acute dermal toxicity : LD 50 (Rabbit): &gt; 19,800 mg/kg

**ACETONE:**

Acute oral toxicity : LD 50 (Rat, female): 5,800 mg/kg

Acute inhalation toxicity : LC 50 (Rat, female): 76 mg/l  
Exposure time: 4 h

Acute dermal toxicity : LD 50 (Rabbit): &gt; 7,426 mg/kg

**TOLUENE:**

Acute oral toxicity : LD 50 (Rat): &gt; 5,000 mg/kg

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Acute inhalation toxicity : LC 50 (Rat): 8000 ppm  
Exposure time: 4 h

Acute dermal toxicity : LD 50 (Rabbit): 12,124 mg/kg

**XYLENE:**

Acute oral toxicity : LD 50 (Rat): 3,523 - 8,600 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 6700 ppm  
Exposure time: 4 h  
Test atmosphere: vapour

Acute dermal toxicity : LD 50 (Rabbit): 1,700 mg/kg

**MAGNESIUM OXIDE:**

Acute oral toxicity : LD 50 (Rat): > 5,000 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Product:**

Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation in susceptible persons.

**Components:****TERT-BUTYL ACETATE:**

Result: Mildly irritating to skin

**ACETONE:**

Result: Mildly irritating to skin

Result: Repeated exposure may cause skin dryness or cracking.

**TOLUENE:**

Result: Irritating to skin

**XYLENE:**

Result: Irritating to skin

**MAGNESIUM OXIDE:**

Result: Possibly irritating to skin

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

**Components:****TERT-BUTYL ACETATE:**

Result: Mildly irritating to eyes

**ACETONE:**

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Result: Irritating to eyes

**TOLUENE:**

Result: Irritating to eyes

**XYLENE:**

Result: Irritating to eyes

**MAGNESIUM OXIDE:**

Result: Possibly irritating to eyes

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

**Components:****TERT-BUTYL ACETATE:**

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Method: Buehler Test

**Germ cell mutagenicity**

Not classified based on available information.

**Components:****TERT-BUTYL ACETATE:**

Genotoxicity in vitro

: Test Type: Ames test

Test species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)

Result: negative

: Test Type: Chromosome aberration test in vitro

Test species: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo

: Test Type: in vivo assay

Test species: Rat (male and female)

Cell type: Bone marrow

Application Route: Inhalation

Result: negative

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Suspected of damaging fertility or the unborn child.

**Components:****TOLUENE:**

Reproductive toxicity -

: Some evidence of adverse effects on sexual function and

Assessment

fertility, and/or on development, based on animal experiments.

**STOT - single exposure**

May cause respiratory irritation.

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May cause drowsiness or dizziness.

**Components:**

TERT-BUTYL ACETATE:

Exposure routes: Ingestion

Target Organs: Central nervous system

Assessment: May cause drowsiness or dizziness.

Exposure routes: Inhalation

Target Organs: Respiratory Tract

Assessment: May cause respiratory irritation.

ACETONE:

Exposure routes: Inhalation

Target Organs: Nervous system

Assessment: May cause drowsiness or dizziness.

TOLUENE:

Exposure routes: Inhalation

Target Organs: Central nervous system

Assessment: May cause drowsiness or dizziness.

XYLENE:

Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

**STOT - repeated exposure**

May cause damage to organs (Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision)) through prolonged or repeated exposure if inhaled.

**Components:**

TOLUENE:

Exposure routes: Inhalation

Target Organs: Neurologic: other (neuropsychological effects, auditory dysfunction and effects on colour vision)

Assessment: May cause damage to organs through prolonged or repeated exposure.

**Aspiration toxicity**

Not classified based on available information.

**Product:**

No aspiration toxicity classification

**Components:**

ACETONE:

May be harmful if swallowed and enters airways.

TOLUENE:

May be fatal if swallowed and enters airways.

XYLENE:

May be fatal if swallowed and enters airways.

**Further information**

**Product:**

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

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**Carcinogenicity:**  
**IARC**

Group 2B: Possibly carcinogenic to humans

ETHYL BENZENE 100-41-4

TALC 14807-96-6

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****TERT-BUTYL ACETATE:**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 240 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203  
GLP: yes
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Daphnia magna)): 350 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes
- Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (microalgae)): 16 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes
- NOEC (Pseudokirchneriella subcapitata (microalgae)): 2.3 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

**ACETONE:**

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- Toxicity to fish : LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss)): 4,740 - 6,330 mg/l  
Exposure time: 96 h  
Test Type: static test
- LC 50 (Fathead minnow (Pimephales promelas)): 8,733 - 9,482 mg/l  
Exposure time: 96 h  
Test Type: flow-through test
- Toxicity to algae : NOEC (Microcystis aeruginosa): 530 mg/l  
Exposure time: 8 d  
Test Type: static test
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 2,112 mg/l  
Exposure time: 28 d  
Test Type: flow-through test
- TOLUENE:**
- Toxicity to fish : LC50 (Oncorhynchus kisutch (coho salmon)): 5.5 mg/l  
Exposure time: 96 h  
Test Type: flow-through test
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Ceriodaphnia dubia)): 3.78 mg/l  
Exposure time: 48 h  
Remarks: Mortality
- Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): > 433 mg/l  
End point: Growth inhibition  
Exposure time: 96 h
- NOEC (Scenedesmus quadricauda (Green algae)): > 400 mg/l  
End point: Growth inhibition  
Exposure time: 7 d
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 1.39 mg/l  
Exposure time: 40 d  
Test Type: flow-through test
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Water flea (Ceriodaphnia dubia)): 0.74 mg/l  
Exposure time: 7 d
- XYLENE:**
- Toxicity to fish : LC 50 (Fathead minnow (Pimephales promelas)): 23.53 - 29.97 mg/l  
Exposure time: 96 h  
Test Type: static test
- Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Daphnia magna)): > 100 - < 1,000 mg/l  
Exposure time: 24 h



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Test Type: static test

**Persistence and degradability****Components:****TERT-BUTYL ACETATE:**

Biodegradability : aerobic  
 Result: Not readily biodegradable.  
 Biodegradation: 50 %  
 Exposure time: 28 d  
 Method: OECD Test Guideline 301D

**ACETONE:**

Biodegradability : Result: Readily biodegradable  
 Biodegradation: 90.9 %  
 Exposure time: 28 d  
 Method: OECD Test Guideline 301B

**TOLUENE:**

Biodegradability : Result: Readily biodegradable

**XYLENE:**

Physico-chemical : Remarks: The product evaporates readily.  
 removability

**MAGNESIUM OXIDE:**

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

**Bioaccumulative potential****Components:****TERT-BUTYL ACETATE:**

Partition coefficient: n- : log Pow: 1.76  
 octanol/water

**ACETONE:**

Partition coefficient: n- : log Pow: -0.24  
 octanol/water

**TOLUENE:**

Bioaccumulation : Species: Ide, silver or golden orfe (Leuciscus idus)  
 Bioconcentration factor (BCF): 94  
 Exposure time: 3 d  
 Concentration: 0.05 mg/l  
 Method: Not reported

Partition coefficient: n- : log Pow: 2.73  
 octanol/water

**XYLENE:**

Partition coefficient: n- : log Pow: 3.16

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octanol/water

**Mobility in soil**

**Components:**

No data available

**Other adverse effects**

No data available

**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life.

**Components:**

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

General advice : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.  
  
Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

**SECTION 14. TRANSPORT INFORMATION**

**International transport regulations**

**REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

UN	1133	Adhesives	3	II	
----	------	-----------	---	----	--

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

UN	1133	Adhesives	3	II	
----	------	-----------	---	----	--

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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

UN	1133	Adhesives	3	II
----	------	-----------	---	----

**INTERNATIONAL MARITIME DANGEROUS GOODS**

UN	1133	ADHESIVES	3	II
----	------	-----------	---	----

**TRANSPORT CANADA - INLAND WATERWAYS**

UN	1133	ADHESIVES	3	II
----	------	-----------	---	----

**TRANSPORT CANADA - RAIL**

UN	1133	ADHESIVES	3	II
----	------	-----------	---	----

**TRANSPORT CANADA - ROAD**

UN	1133	ADHESIVES	3	II
----	------	-----------	---	----

**U.S. DOT - INLAND WATERWAYS**

UN	1133	Adhesives	3	II
----	------	-----------	---	----

**U.S. DOT - RAIL**

UN	1133	Adhesives	3	II
----	------	-----------	---	----

**U.S. DOT - ROAD**

UN	1133	ADHESIVOS	3	II
----	------	-----------	---	----

**\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant	no
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
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XYLENE	1330-20-7	100	4608.719698
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**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

**SARA 313 Component(s)**

TOLUENE	108-88-3	4.78 %
XYLENE	1330-20-7	2.16 %
ETHYL BENZENE	100-41-4	0.63 %

**California Prop 65** WARNING! This product contains a chemical known to the State of California to cause cancer.

ETHYL BENZENE 100-41-4

FORMALDEHYDE 50-00-0

2-CHLORO-1,3-BUTADIENE 126-99-8

BENZENE 71-43-2

TRANS-1,4-DICHLOROBUT-2-ENE 110-57-6

LEAD OXIDE 1317-36-8

CADMIUM OXIDE 1306-19-0

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

TOLUENE 108-88-3

BENZENE 71-43-2

LEAD OXIDE 1317-36-8

CADMIUM OXIDE 1306-19-0

**The components of this product are reported in the following inventories:**

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

AUSTR : Not in compliance with the inventory

ENCS : Not in compliance with the inventory

KECL : On the inventory, or in compliance with the inventory

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PICCS : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

**SECTION 16. OTHER INFORMATION**

**Further information**

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<p><b>NFPA:</b></p> <p>Health: 2, Flammability: 3, Instability: 0, Special hazard.</p>	<p><b>HMIS III:</b></p> <table border="1"> <tr> <td style="background-color: #0056b3; color: white;">HEALTH</td> <td style="text-align: center;"><b>2*</b></td> </tr> <tr> <td style="background-color: #ff0000; color: white;">FLAMMABILITY</td> <td style="text-align: center;"><b>3</b></td> </tr> <tr> <td style="background-color: #ffff00;">PHYSICAL HAZARD</td> <td style="text-align: center;"><b>0</b></td> </tr> </table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	<b>2*</b>	FLAMMABILITY	<b>3</b>	PHYSICAL HAZARD	<b>0</b>
HEALTH	<b>2*</b>						
FLAMMABILITY	<b>3</b>						
PHYSICAL HAZARD	<b>0</b>						

**NFPA Flammable and Combustible Liquids Classification**

Flammable Liquid Class IB

**Full text of H-Statements referred to under sections 2 and 3.**

- H225 Highly flammable liquid and vapor.
- H226 Flammable liquid and vapor.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H361 Suspected of damaging fertility or the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

Sources of key data used to compile the Safety Data Sheet

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Ashland internal data including own and sponsored test reports  
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists  
BEI : Biological Exposure Index  
CAS : Chemical Abstracts Service (Division of the American Chemical Society).  
CMR : Carcinogenic, Mutagenic or Toxic for Reproduction  
FG : Food grade  
GHS : Globally Harmonized System of Classification and Labeling of Chemicals.  
H-statement : Hazard Statement  
IATA : International Air Transport Association.  
IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization  
ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"  
IMDG : International Maritime Code for Dangerous Goods  
ISO : International Organization for Standardization  
logPow : octanol-water partition coefficient  
LCxx : Lethal Concentration, for xx percent of test population  
LDxx : Lethal Dose, for xx percent of test population.  
ICxx : Inhibitory Concentration for xx of a substance  
Ecxx : Effective Concentration of xx  
N.O.S.: Not Otherwise Specified  
OECD : Organization for Economic Co-operation and Development  
OEL : Occupational Exposure Limit  
P-Statement : Precautionary Statement  
PBT : Persistent , Bioaccumulative and Toxic  
PPE : Personal Protective Equipment  
STEL : Short-term exposure limit  
STOT : Specific Target Organ Toxicity  
TLV : Threshold Limit Value  
TWA : Time-weighted average  
vPvB : Very Persistent and Very Bioaccumulative  
WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act  
DOT : Department of Transportation  
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act  
HMIRC : Hazardous Materials Information Review Commission  
HMIS : Hazardous Materials Identification System  
NFPA : National Fire Protection Association  
NIOSH : National Institute for Occupational Safety and Health  
OSHA : Occupational Safety and Health Administration  
PMRA : Health Canada Pest Management Regulatory Agency

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RTK : Right to Know

WHMIS : Workplace Hazardous Materials Information System