SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Trade name: NAPA® MAC’S CARB & CHOKE & TBC CARB & CHOKE CLEANER

Recommended use of the chemical and restrictions on use

<table>
<thead>
<tr>
<th>Details of the supplier of the safety data sheet</th>
<th>Emergency telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashland</td>
<td>1-800-ASHLAND (1-800-274-5263)</td>
</tr>
<tr>
<td>P.O. Box 2219</td>
<td></td>
</tr>
<tr>
<td>Columbus, OH 43216</td>
<td></td>
</tr>
<tr>
<td>United States of America</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-800-325-3751</td>
</tr>
<tr>
<td>EHS Customer <a href="mailto:Requests@ashland.com">Requests@ashland.com</a></td>
<td>614-790-3333</td>
</tr>
</tbody>
</table>

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable aerosols: Category 1
Eye irritation: Category 2A
Specific target organ systemic toxicity - single exposure: Category 1 (Central nervous system, Eyes)
Specific target organ systemic toxicity - single exposure: Category 3 (Central nervous system)
Specific target organ systemic toxicity - repeated exposure: Category 2 (Auditory system)

GHS Label element
Hazard pictograms: 

Signal Word: Danger
Hazard Statements
: Extremely flammable aerosol. Causes serious eye irritation. May cause drowsiness or dizziness. Causes damage to organs (Central nervous system, Eyes). May cause damage to organs (Auditory system) through prolonged or repeated exposure.

Precautionary Statements
: Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear eye protection/ face protection.
Response:
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: Call a POISON CENTER or doctor/ physician.
If eye irritation persists: Get medical advice/ attention.
Storage:
Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Chemical nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture</td>
<td>Aspiration hazard</td>
</tr>
<tr>
<td></td>
<td>Static Accumulator</td>
</tr>
<tr>
<td></td>
<td>Defatter</td>
</tr>
</tbody>
</table>

Hazardous components
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>Flam. Liq. 2; H225</td>
<td>86.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye Irrit. 2A; H319</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE 3; H336</td>
<td></td>
</tr>
<tr>
<td>CARBON DIOXIDE</td>
<td>124-38-9</td>
<td>Press. Gas Liquefied gas; H280</td>
<td>5.86</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>Flam. Liq. 3; H226</td>
<td>5.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 4; H312</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin Irrit. 2; H315</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye Irrit. 2A; H319</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE 3; H335, H336</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asp. Tox. 1; H304</td>
<td></td>
</tr>
<tr>
<td>METHANOL</td>
<td>67-56-1</td>
<td>Flam. Liq. 2; H225</td>
<td>2.79</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 3; H301</td>
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<td></td>
<td></td>
<td>Acute Tox. 3; H331</td>
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<td></td>
<td></td>
<td>Acute Tox. 3; H311</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE 1; H370</td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>Flam. Liq. 2; H225</td>
<td>1.53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 4; H332</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin Irrit. 2; H315</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye Irrit. 2A; H319</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT RE 2; H373</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asp. Tox. 1; H304</td>
<td></td>
</tr>
</tbody>
</table>
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.

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. This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis.
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)
- discomfort in the chest
- effects on memory
- muscle cramps
- pain in the abdomen and lower back
- Blurred vision
- Shortness of breath
- confusion
- irregular heartbeat
- cyanosis (causes blue coloring of the skin and nails from lack of oxygen)
- visual impairment (including blindness)
- Causes serious eye irritation.
- May cause drowsiness or dizziness.
- Causes damage to organs.
- May cause damage to organs through prolonged or repeated exposure.

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

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 (CO2)
- 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: carbon dioxide and carbon monoxide
- Hydrocarbons
- Aldehydes

Specific extinguishing: 

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methods

Product is compatible with standard fire-fighting agents.

Further information : Use a water spray to cool fully closed containers.

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

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.

Other information : Comply with all applicable federal, state, and local regulations.
Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Open drum carefully as content may be under pressure.
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.
Container may be opened only under exhaust ventilation hood.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force
or throw into fire even after use. Do not spray on flames or red-hot objects.
Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
No smoking.
Electrical installations / working materials must comply with the technological safety standards.

### SECTION 8. EXPOSURE CONTROLS/PERSOAL PROTECTION

#### Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>TWA</td>
<td>500 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>750 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REL</td>
<td>250 ppm 990 mg/m3</td>
<td>NIOSH/GUIDE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>1,000 ppm 2,400 mg/m3</td>
<td>OSHA_TRA NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>250 ppm</td>
<td>ACGIHLIS_P</td>
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<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>500 ppm</td>
<td>ACGIHLIS_P</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>750 ppm 1,800 mg/m3</td>
<td>Z1A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1,000 ppm 2,400 mg/m3</td>
<td>Z1A</td>
</tr>
<tr>
<td>CARBON DIOXIDE</td>
<td>124-38-9</td>
<td>TWA</td>
<td>5,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>30,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REL</td>
<td>5,000 ppm 9,000 mg/m3</td>
<td>NIOSH/GUIDE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>30,000 ppm 54,000 mg/m3</td>
<td>NIOSH/GUIDE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>5,000 ppm 9,000 mg/m3</td>
<td>OSHA_TRA NS</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>TWA</td>
<td>100 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>150 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL</td>
<td>100 ppm 435 mg/m3</td>
<td>OSHA_TRA NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REL</td>
<td>100 ppm 435 mg/m3</td>
<td>NIOSH/GUIDE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>150 ppm 665 mg/m3</td>
<td>NIOSH/GUIDE</td>
</tr>
<tr>
<td>METHANOL</td>
<td>67-56-1</td>
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<td>200 ppm</td>
<td>ACGIH</td>
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<td></td>
<td></td>
<td>STEL</td>
<td>250 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REL</td>
<td>200 ppm 260 mg/m3</td>
<td>NIOSH/GUIDE</td>
</tr>
</tbody>
</table>
## Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>acetone</td>
<td>Urine</td>
<td>Sampling time: End of shift.</td>
<td>50 mg/l</td>
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</tr>
<tr>
<td>Remarks:</td>
<td>Nonspecific</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>Methylhippuric acids</td>
<td>Creatinine in urine</td>
<td>Sampling time: End of shift.</td>
<td>1.5 g/g</td>
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</tr>
<tr>
<td>Remarks:</td>
<td>Background, Nonspecific</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>Sum of mandelic acid and phenylglyoxylic acid</td>
<td>Creatinine in urine</td>
<td>Sampling time: End of shift.</td>
<td>0.15 g/g</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>Remarks:</td>
<td>Nonspecific</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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.

### Personal protective equipment

**Respiratory protection**

In the case of vapour formation use a respirator with an approved filter.

In the case of dust or aerosol formation use 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

Remarks: Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Remarks: 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

Remarks: Wash hands before breaks and at the end of workday.
- When using do not eat or drink.
- When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: aerosol

Odour: No data available

Odour Threshold: No data available

pH: No data available

Melting point/freezing point: No data available

Boiling point/boiling range: No data available

Flash point: -4 °F / -20 °C

Evaporation rate: No data available

Flammability (solid, gas): No data available
Flammability (liquids): Static Accumulating liquid

Flammability (liquids):
Upper explosion limit: 36 % (V)
GLP: Calculated Explosive Limit

Lower explosion limit: 1 % (V)
GLP: Calculated Explosive Limit

Vapour pressure: > 9,999 hPa (21 °C)
Value for Component

Relative vapour density: No data available

Relative density: No data available

Density: 0.756 g/cm³ (21.1 °C)

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: No data available

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.

Conditions to avoid: Heat, flames and sparks.
excessive heat

Incompatible materials: Acids
alkalis
aluminum
Amines
Ammonia
halogens
Lead
peroxides
Reducing agents
sodium
strong bases
Strong oxidizing agents
Zinc
Peroxides

Hazardous decomposition products:
carbon dioxide and carbon monoxide
formaldehyde-like
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:

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): > 7,426 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

METHANOL:
- Acute oral toxicity: LD L0 (Human): 300 mg/kg
  Assessment: The component/mixture is classified as acute oral toxicity, category 3.
Acute inhalation toxicity: LC 50 (Rat): 64000 ppm
   Exposure time: 4 h

Assessment: The component/mixture is classified as acute inhalation toxicity, category 3.
Remarks: Slightly toxic by inhalation

Acute dermal toxicity: LD 50 (Rabbit): 12,800 mg/kg

Assessment: The component/mixture is classified as acute dermal toxicity, category 3.

ETHYL BENZENE:
Acute oral toxicity: LD 50 (Rat): ca. 3,500 mg/kg

Acute inhalation toxicity: LC50 (Rat): 4000 ppm
   Exposure time: 4 h
   Test atmosphere: vapour

Acute dermal toxicity: LD 50 (Rabbit): 17,800 mg/kg

Skin corrosion/irritation
Not classified based on available information.

**Product:**
Remarks: May cause skin irritation in susceptible persons.

Result: Repeated exposure may cause skin dryness or cracking.

**Components:**
ACETONE:
Result: Mildly irritating to skin

Result: Repeated exposure may cause skin dryness or cracking.

CARBON DIOXIDE:
Result: Not irritating to skin

XYLENE:
Result: Irritating to skin

METHANOL:
Species: Rabbit
Result: Not irritating to skin

ETHYL BENZENE:
Result: 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:
ACETONE:
Result: Irritating to eyes

CARBON DIOXIDE:
Result: Not irritating to eyes

XYLENE:
Result: Irritating to eyes

METHANOL:
Species: Rabbit
Result: Mildly irritating to eyes

ETHYL BENZENE:
Result: Irritating to eyes
Remarks: Exposure to a concentration of 5000 ppm causes intolerable irritation of the eyes

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Components:
METHANOL:
Test Type: Maximisation Test (GPMT)
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Method: OECD Test Guideline 406

Germ cell mutagenicity
Not classified based on available information.
Carcinogenicity
Not classified based on available information.
Reproductive toxicity
Not classified based on available information.
STOT - single exposure
May cause drowsiness or dizziness.
Causes damage to organs (Central nervous system, Eyes).

Components:
ACETONE:
Exposure routes: Inhalation
Target Organs: Nervous system
Assessment: May cause drowsiness or dizziness.

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

METHANOL:
Target Organs: Central nervous system, Eyes
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 1.

STOT - repeated exposure
May cause damage to organs (Auditory system) through prolonged or repeated exposure.
Components:
ETHYL BENZENE:
Target Organs: Auditory system
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.

XYLENE:
May be fatal if swallowed and enters airways.

ETHYL BENZENE:
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.

Components:
METHANOL:
Remarks: Central nervous system

ETHYL BENZENE:
Remarks: Central nervous system

Carcinogenicity:
IARC
Group 2B: Possibly carcinogenic to humans

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:**

**ACETONE:**
- **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

**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
  - Test Type: static test

**METHANOL:**
- **Toxicity to fish:**
  - LC 50 (Rainbow trout, donaldson trout (Oncorhynchus mykiss)): 18,000 - 20,000 mg/l
  - Exposure time: 96 h
  - Test Type: static test

- **Toxicity to daphnia and other aquatic invertebrates:**
  - EC 50 (Water flea (Daphnia magna)): > 10,000 mg/l
  - Exposure time: 48 h
  - Test Type: static test

**ETHYL BENZENE:**
- **Toxicity to fish:**
  - LC 50 (Fathead minnow (Pimephales promelas)): 9.1 - 15.6 mg/l
  - Exposure time: 96 h
  - Test Type: static test
**Persistence and degradability**

**Components:**

**ACETONE:**

<table>
<thead>
<tr>
<th>Biodegradability</th>
<th>Result: Readily biodegradable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodegradation</td>
<td>90.9 %</td>
</tr>
<tr>
<td>Exposure time</td>
<td>28 d</td>
</tr>
<tr>
<td>Method</td>
<td>OECD Test Guideline 301B</td>
</tr>
</tbody>
</table>

**XYLENE:**

<table>
<thead>
<tr>
<th>Biodegradability</th>
<th>Biodegradation: 99 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time</td>
<td>28 d</td>
</tr>
<tr>
<td>Method</td>
<td>OECD Test Guideline 301D</td>
</tr>
</tbody>
</table>

**METHANOL:**

<table>
<thead>
<tr>
<th>Biodegradability</th>
<th>Biodegradation: 99 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time</td>
<td>28 d</td>
</tr>
<tr>
<td>Method</td>
<td>OECD Test Guideline 301D</td>
</tr>
</tbody>
</table>

**ETHYL BENZENE:**

<table>
<thead>
<tr>
<th>Biodegradability</th>
<th>Result: Readily biodegradable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodegradation</td>
<td>70 - 80 %</td>
</tr>
<tr>
<td>Exposure time</td>
<td>28 d</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

**Components:**

**ACETONE:**

<table>
<thead>
<tr>
<th>Partition coefficient: n-octanol/water</th>
<th>log Pow: -0.24</th>
</tr>
</thead>
</table>

**XYLENE:**

<table>
<thead>
<tr>
<th>Partition coefficient: n-octanol/water</th>
<th>log Pow: 3.16</th>
</tr>
</thead>
</table>

**METHANOL:**

<table>
<thead>
<tr>
<th>Bioaccumulation</th>
<th>Species: Green algae (Chlorella fusca vacuolata)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioconcentration factor (BCF)</td>
<td>28,400</td>
</tr>
</tbody>
</table>
Exposure time: 24 h
Concentration: 0.05 mg/l
Method: Static

Partition coefficient: n-octanol/water : log Pow: -0.77

ETHYL BENZENE:
Partition coefficient: n-octanol/water : log Pow: 3.15

Mobility in soil
Components: No data available
Other adverse effects No data available
Product:
Additional ecological information : No data available

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
General advice : Do not dispose of waste into sewer.
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.
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

<table>
<thead>
<tr>
<th>ID NUMBER</th>
<th>PROPER SHIPPING NAME</th>
<th>*HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT - ROAD</td>
<td>ORM-D, CONSUMER COMMODITY</td>
<td>ORM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U.S. DOT - RAIL</th>
<th>ORM-D, CONSUMER COMMODITY</th>
<th>ORM</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>U.S. DOT - INLAND WATERWAYS</th>
<th>ORM-D, CONSUMER COMMODITY</th>
<th>ORM</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TRANSPORT CANADA - ROAD</th>
<th>UN 1950 AEROSOLS 2.1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TRANSPORT CANADA - RAIL</th>
<th>UN 1950 AEROSOLS 2.1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TRANSPORT CANADA - INLAND WATERWAYS</th>
<th>UN 1950 AEROSOLS 2.1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>INTERNATIONAL MARITIME DANGEROUS GOODS</th>
<th>UN 1950 AEROSOLS 2.1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO</th>
<th>UN 1950 Aerosols, flammable 2.1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER</th>
<th>UN 1950 Aerosols, flammable 2.1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES</th>
<th>UN 1950 AEROSOLES 2</th>
</tr>
</thead>
</table>

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

<table>
<thead>
<tr>
<th>Marine pollutant</th>
<th>no</th>
</tr>
</thead>
</table>


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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>100</td>
<td>1636.205966</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazards:
- Fire Hazard
- Acute Health Hazard
- Chronic Health Hazard

SARA 313 Component(s)

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>RQ %</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>5.12 %</td>
</tr>
<tr>
<td>METHANOL</td>
<td>67-56-1</td>
<td>2.79 %</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>1.53 %</td>
</tr>
</tbody>
</table>

Pennsylvania Right To Know

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>RQ %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>70.00 - 90.00 %</td>
</tr>
<tr>
<td>CARBON DIOXIDE</td>
<td>124-38-9</td>
<td>5.00 - 10.00 %</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>5.00 - 10.00 %</td>
</tr>
<tr>
<td>METHANOL</td>
<td>67-56-1</td>
<td>1.00 - 5.00 %</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>1.00 - 5.00 %</td>
</tr>
</tbody>
</table>

New Jersey Right To Know

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>RQ %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>70.00 - 90.00 %</td>
</tr>
<tr>
<td>CARBON DIOXIDE</td>
<td>124-38-9</td>
<td>5.00 - 10.00 %</td>
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<tr>
<td>XYLENE</td>
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</tr>
<tr>
<td>METHANOL</td>
<td>67-56-1</td>
<td>1.00 - 5.00 %</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>1.00 - 5.00 %</td>
</tr>
</tbody>
</table>

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.
ETHYL BENZENE 100-41-4
BENZENE 71-43-2

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

METHANOL 67-56-1
TOLUENE 108-88-3
BENZENE 71-43-2

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.
AUS: On the inventory, or in compliance with the inventory
ENCS : On the inventory, or in compliance with the inventory
KECL : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or 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), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)
### NFPA Flammable and Combustible Liquids Classification

Not applicable

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

- **H225**: Highly flammable liquid and vapor.
- **H226**: Flammable liquid and vapor.
- **H280**: Contains gas under pressure; may explode if heated.
- **H301**: Toxic if swallowed.
- **H304**: May be fatal if swallowed and enters airways.
- **H311**: Toxic in contact with skin.
- **H312**: Harmful in contact with skin.
- **H315**: Causes skin irritation.
- **H319**: Causes serious eye irritation.
- **H331**: Toxic if inhaled.
- **H332**: Harmful if inhaled.
- **H335**: May cause respiratory irritation.
- **H336**: May cause drowsiness or dizziness.
- **H370**: Causes damage to organs.
- **H373**: May cause damage to organs through prolonged or repeated exposure.

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Sources of key data used to compile the Safety Data Sheet

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
RTK: Right to Know
WHMIS: Workplace Hazardous Materials Information System