

Rec'd 8/1/02  
CER

MATERIAL SAFETY DATA SHEET

Ashland

Page 001  
Date Prepared: 10/24/01  
Date Printed: 11/21/01  
MSDS No: 999.0004335-009.002

ACETONE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: ACETONE  
General or Generic ID: KETONE

Company

Ashland  
Ashland Distribution Co. &  
Ashland Specialty Chemical Co.  
P. O. Box 2219  
Columbus, OH 43216  
614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)  
24 hours everyday

Regulatory Information Number:

1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredient(s) | CAS Number | % (by weight) |
|---------------|------------|---------------|
| ACETONE       | 67-64-1    | 98.0-100.0    |

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

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Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, high blood sugar, coma.

Target Organ Effects

This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, mild, reversible kidney effects, blood abnormalities.

Developmental Information

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Cancer Information

Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

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Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

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4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), liver, kidney, blood-forming system.

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5. FIRE FIGHTING MEASURES

Flash Point

-4.0 F (-20.0 C) TCC

Explosive Limit

(for product) Lower 2.6 Upper 12.8 %

Autoignition Temperature

869.0 F (465.0 C)

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide.

Fire and Explosion Hazards

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media

alcohol foam, carbon dioxide, dry chemical.

Fire Fighting Instructions

Water may be ineffective. Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 1, Flammability - 3, Reactivity - 0

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6. ACCIDENTAL RELEASE MEASURES

Small Spill

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

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Large Spill

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

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7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five-gallon pails and larger metal containers, including tank cars and tank trucks, should be grounded and/or bonded when material is transferred. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

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**Skin Protection**

Wear resistant gloves (consult your safety equipment supplier)., To prevent repeated or prolonged skin contact, wear impervious clothing and boots..

**Respiratory Protections**

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

**Engineering Controls**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

**Exposure Guidelines**

Component

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ACETONE (67-64-1)

OSHA PEL 1000.000 ppm - TWA

OSHA VPEL 750.000 ppm - TWA

OSHA VPEL 1000.000 ppm - STEL

ACGIH TLV 500.000 ppm - TWA

ACGIH TLV 750.000 ppm - STEL

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Boiling Point**

(for product) 133.0 F (56.1 C) @ 760 mmHg

**Vapor Pressure**

(for product) 185.000 mmHg @ 68.00 F

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Specific Vapor Density  
2.000 @ AIR=1

Specific Gravity  
.785 - .788 @ 77.00 F

Liquid Density  
6.590 lbs/gal @ 68.00 F  
.791 kg/l @ 20.00 C

Percent Volatiles  
100.0 %

Volatile Organic Compounds (VOC)  
.000 %  
.000 g/l  
6.590 lbs/gal

Evaporation Rate  
14.40 (N-BUTYL ACETATE )

Appearance  
COLORLESS LIQUID

State  
LIQUID

Physical Form  
NEAT

Color  
CLEAR, APHA COLOR 5 MAX

Odor  
MILD/SWEET

pH  
No data

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Viscosity

.3 cps

Freezing Point

-139.0 F (-95.0 C)

Molecular Weight

58.1

Solubility in Water

SOLUBLE

Bulk Density

.880 lbs/ft3

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10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: acids, strong oxidizing agents.

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11. TOXICOLOGICAL INFORMATION

No data

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12. ECOLOGICAL INFORMATION

No data

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13. DISPOSAL CONSIDERATION

Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

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14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:  
ACETONE, 3, UN1090, II

Container/Mode:  
55 GAL DRUM/TRUCK PACKAGE

NOS Component:  
None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

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5000 ACETONE

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15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status  
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

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CERCLA RQ - 40 CFR 302.4(a)

| Component | RQ (lbs) |
|-----------|----------|
| ACETONE   | 5000     |

SARA 302 Components - 40 CFR 355 Appendix A  
None

Section 311/312 Hazard Class - 40 CFR 370.2  
Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden  
Release of Pressure( )

SARA 313 Components - 40 CFR 372.65  
None

OSHA Process Safety Management 29 CFR 1910  
None listed

EPA Accidental Release Prevention 40 CFR 68  
None listed

International Regulations

Inventory Status

AICS (AUSTRALIA) The intentional ingredients of this product are listed.  
CICS (CHINESE) The intentional ingredients of this product are listed.  
DSL (CANADA) The intentional ingredients of this product are listed.  
ECL (SOUTH KOREA) The intentional ingredients of this product are listed.  
EINECS (EUROPE) The intentional ingredients of this product are listed.  
ENCS (JAPAN) The intentional ingredients of this product are listed.  
NDSL (CANADA - NDSL) The intentional ingredients of this product are listed.  
PICCS (PHILIPPINES) The intentional ingredients of this product are listed.  
SWISS (SWITZERLAND) The intentional ingredients of this product are listed.

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State and Local Regulations

California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.

BENZENE

ACETALDEHYDE

FORMALDEHYDE (GAS)

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm.

BENZENE

New Jersey RTK Label Information

ACETONE

67-64-1

Pennsylvania RTK Label Information

2-PROPANONE

67-64-1

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16. OTHER INFORMATION

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.

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