SAFETY DATA SHEET

Preparation Date: 5/15/2016 **Revision Date:** 10/20/2016

1. IDENTIFICATION

Product identifier

Product code: SLA3502, SLA3151, SLA1645, SLA3808

Product Name: ACETONE

Other means of identification

Synonyms:

beta-Ketopropane
Dimethyl ketone
Dimethylformaldehyde
Dimethylketal
Ketone propane Ketone, dimethyl Methyl ketone
Propanone
Pyroacetic acid
Pyroacetic ether
Acétone (French)
Acetona (Spanish)

CAS #: 67-64-1
RTECS # AL3150000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Solvent.
Uses advised against No information available

Supplier:
ScienceLab.com, Inc.
2700 Greens Rd., Bldg I, Ste 300
Houston, TX 77032
(281)441-4400

Order Online At: https://www.sciencelab.com

Emergency telephone number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

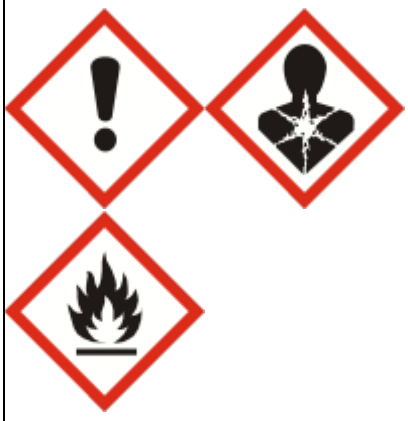
Serious eye damage/eye irritation	Category 2
Reproductive toxicity	Category 2

Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Label elements

Danger

Hazard statements
Causes serious eye irritation
Suspected of damaging fertility or the unborn child
May cause respiratory irritation. May cause drowsiness or dizziness
Highly flammable liquid and vapor



Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Causes mild skin irritation
Repeated exposure may cause skin dryness or cracking

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
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
Keep cool

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
In case of fire: Use CO2, dry chemical, or foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN (or hair): Remove/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.

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Acetone 67-64-1	67-64-1	99-100.5
Benzene 71-43-2	71-43-2	0-0.003
Formaldehyde 50-00-0	50-00-0	0-0.002

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms Moderate eye irritation. Mild skin irritation. Nausea. Vomiting. Central nervous system effects. Dizziness. Drowsiness. Fatigue. Narcosis. Ataxia. Staggering gait. Headache. May affect respiration. Respiratory depression. May cause cardiovascular effects. Hypotension. Weak, rapid pulse or rapid heart rate (Tachycardia). May cause metabolic acidosis.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Alcohol-resistant foam. Water spray.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon monoxide; carbon dioxide

Specific hazards:

Flammable
May be ignited by heat, sparks or flames
Vapor may travel considerable distance to source of ignition and flash back
Vapors may form explosive mixtures with air
Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks)
Container explosion may occur under fire conditions or when heated
Fire may produce irritating, corrosive and/or toxic gases

Special Protective Actions for Firefighters

Specific Methods:

Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store in a segrated and approved area. Store away from incompatible materials.

Incompatible Materials:
Oxidizing agents. Reducing agents. Bases. Acids. activated carbon. chromium trioxide . dioxygen difluoride + carbon dioxide . Potassium dichromate or Sodium dichromate. Potassium t-butoxide. Hydrogen peroxide. Chromic anhydride. Chromyl chloride. Hexachloromelamine. Nitrosyl chloride + Platinum. Nitrosyl chloride. Bromine trifluoride. Thiodiglycol. 2,4,6-trichloro-1,3,5-triazine + water. 2-Methyl-1,3-butadiene. Chloroform.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Acetone 67-64-1	1000 ppm TWA 2400 mg/m³ TWA	250 ppm TWA 590 mg/m³ TWA	750 ppm STEL 500 ppm TWA	None
Benzene 71-43-2	10 ppm TWA 1 ppm TWA 25 ppm Ceiling 5 ppm STEL	0.1 ppm TWA 1 ppm STEL	2.5 ppm STEL 0.5 ppm TWA	None
Formaldehyde 50-00-0	0.75 ppm TWA 2 ppm STEL	0.016 ppm TWA 0.1 ppm Ceiling 15 min	0.3 ppm Ceiling	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Acetone 67-64-1	500 ppm TWA 1200 mg/m³ TWA 750 ppm STEL 1800 mg/m³ STEL	250 ppm TWA 500 ppm STEL	500 ppm TWA 750 ppm STEL	500 ppm TWAEV 1190 mg/m³ TWAEV 1000 ppm STEV 2380 mg/m³ STEV
Benzene 71-43-2	0.5 ppm TWA 1.6 mg/m³ TWA 2.5 ppm STEL 8 mg/m³ STEL	0.5 ppm TWA 2.5 ppm STEL	0.5 ppm TWA	1 ppm TWAEV 3 mg/m³ TWAEV 5 ppm STEV 15.5 mg/m³ STEV
Formaldehyde 50-00-0	1 ppm Ceiling 1.3 mg/m³ Ceiling 0.75 ppm TWA 0.9 mg/m³ TWA	0.3 ppm TWA 1 ppm Ceiling	1.5 ppm Ceiling 1.0 ppm STEL	2 ppm Ceiling 3 mg/m³ Ceiling

Australia and Mexico

Components	Australia	Mexico
Acetone 67-64-1	1000 ppm STEL 2375 mg/m³ STEL 1185 mg/m³TWA 500 ppm TWA	1000 ppm TWA 2400 mg/m³ TWA 1260 ppm STEL 3000 mg/m³ STEL
Benzene 71-43-2	1.0 ppm//3.2 mg/m³TWA confirmed carcinogen	1 ppm TWA 3.2 mg/m³ TWA 5 ppm STEL 16 mg/m³ STEL
Formaldehyde 50-00-0	1 ppm/1.2 mg/m³TWA 2 ppm/2.5 mg/m³STEL probable carcinogen	2 ppm Ceiling 3 mg/m³ Ceiling

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles

Skin and body protection: Chemical resistant apron. Long sleeved clothing. Gloves.

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Liquid

Appearance:
No information available

Color:
Clear. Colorless.

Odor:
Fruity. Mint-like. Fragrant. Ethereal.

Taste
Pungent. Sweetish.

Formula:
C3-H6-O

Molecular/Formula weight:
58.08

Flammability:
No information available

Flash point (°C):
-20 °C

Flashpoint (°C/°F):
-20 to -17 °C/-4 to 1.4 °F
-9.4 to -9 °C/15.1 to 15.8 °F

Flash Point Tested according to:
Closed cup
Open cup

Autoignition Temperature (°C/°F):
465 °C/869 °F

Lower Explosion Limit (%):
2.5-2.6%

Upper Explosion Limit (%):
12.8%

pH:
No information available

Melting point/range(°C/°F):
-94.7 to -95.4 °C/-138.46 to -139.72

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):
56.2 °C/133.2 °F

Bulk density:
No information available

Density (g/cm3):
0.780 @ 30 °C
0.784 @ 25 °C
0.79 @ 20 °C

Specific gravity:
0.79 @ 20 °C

Vapor pressure @ 20°C (kPa):
24

Evaporation rate:
5.6 (Butyl acetate = 1)

Vapor density:
2.0

VOC content (g/L):
780-790

Odor threshold (ppm):
62-140

Partition coefficient (n-octanol/water):
- 0.24

Viscosity:
No information available

Miscibility:
Miscible with water
Miscible with Ether
Miscible with Chloroform
Miscible with Benzene
Miscible with alcohol

Solubility:
No information available

10. STABILITY AND REACTIVITY

Reactivity

10. STABILITY AND REACTIVITY

Reactive with oxidizing agents
Reacts with reducing agents
Reactive with acids
Reacts with strong bases
Acetone ignites on contact with activated carbon, chromium trioxide, dioxygen difluoride + carbon dioxide, potassium-tert-butoxide, sulfuric acid + potassium dichromate
Acetone may form explosive mixtures with chromic anhydride, chromyl chloride, hexachloromelamine, hydrogen peroxide, nitric acid and acetic acid, nitric acid and sulfuric acid, nitrosyl chloride, nitrosyl chloride + platinum, nitrosyl perchlorate, nitryl perchlorate, permonosulfuric acid, potassium tert-butoxide, thiodiglycol, chloroform, bromine trifluoride, thiotrithiazyl perchlorate, 2,4,6-trichloro-1,3,5-triazine + water, 2-methyl-1,3-butadiene, peroxomonosulfuric acid
An explosion occurred during an attempt to prepare bromoform from acetone by the haloform reaction
Chloroform and acetone interact vigorously and exothermally in presence of solid potassium hydroxide or calcium hydroxide to form 1,1,1-trichloro-2-hydroxy-2-methylpropane

Chemical stability
Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents. Reducing agents. Bases. Acids. activated carbon. chromium trioxide . dioxygen difluoride + carbon dioxide . Potassium dichromate or Sodium dichromate. Potassium t-butoxide. Hydrogen peroxide. Chromic anhydride. Chromyl chloride. Hexachloromelamine. Nitrosyl chloride + Platinum. Nitrosyl chloride. Bromine trifluoride. Thiodiglycol. 2,4,6-trichloro-1,3,5-triazine + water. 2-Methyl-1,3-butadiene. Chloroform.

Hazardous decomposition products: Carbon monoxide. Carbon dioxide.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Skin. Eyes. Inhalation.

Acute Toxicity

Component Information

Acetone - 67-64-1

LD50/oral/rat = 5800 mg/kg Oral LD50 Rat
LD50/oral/mouse = 3 gm/kg
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = 50100 mg/m^3 Inhalation LC50 Rat 8 h
LC50/inhalation/mouse = 44 gm/m^3/4H

Other LD50 or LC50information = >9400 uL/kg LD50 Dermal Guinea Pig
5340 mg/kg LD50 Oral Rabbit

Benzene - 71-43-2

LD50/oral/rat = 1800 mg/kg (LOLI)
930-6400 mg/kg (RTECS)
810 mg/kg Oral LD50 Rat (LOLI)
LD50/oral/mouse = 4700 mg/kg
LD50/dermal/rabbit = >9400 mg/kg Dermal LD50 Rabbit (RTECS)
>8200 mg/kg (LOLI)
LD50/dermal/rat = No information available
LC50/inhalation/rat = 13050 - 16000 ppm Inhalation LC50 Rat 4 h (EU Commission IUCLID dataset)
44.66 mg/L Inhalation LC50 Rat 4 h (LOLI)
LC50/inhalation/mouse = No infomation available
Other LD50 or LC50information = >9400 uL/kg LD50 Dermal Guinea Pig

Formaldehyde - 50-00-0

LD50/oral/rat = 500 mg/kg Oral LD50 Rat (RTECS and LOLI)
100 mg/kg (RTECS)
LD50/oral/mouse = 500 mg/kg (RTECS)
385 mg/kg (RTECS)
42 mg/kg (RTECS)
LD50/dermal/rabbit = 270 mg/kg Dermal LD50Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 0.578 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = No infomation available
Other LD50 or LC50information = 260 mg/kg oral LD50 Guinea Pig

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 5800

LD50/oral/mouse =
Value - Acute Tox Oral = 3000mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 20000mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = 76mg/l (4-hr)
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation. Mildly to moderately irritating to the skin. It may be absorbed through the skin. If absorbed through skin it may cause systemic effects with symptoms similar to those of ingestion.

Eye Contact: Causes eye irritation. Moderately irritating to the eyes. May cause corneal injury.

Inhalation Irritating to respiratory system. May cause conjunctival irritation. May cause nausea, vomiting. May cause loss of appetite. May affect the brain. May affect the kidneys. May cause muscle weakness. May affect respiration (respiratory depression). Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unsteady gait, drowsiness, lethargy, sleepiness lightheadness, fainting, narcosis, confusion, loss of coordination, lassitude, speech abnormalities, tremor, unconciousness, coma. May cause metabolic acidosis. May cause other symptoms similar to those of ingestion.

Ingestion May cause digestive (gastointestinal) tract irritation. Ingestion may cause nausea, vomiting. It may affect metabolism (ketosis/ketonemia/ketonuria). May cause hyperglycemia. May affect liver . May affect respiration. May affect the cardiovascular system (hypotension). May affect the cardiovascular system (weak rapid pulse, tachycardia). May cause metabolic acidosis. May affect urinary system (kidneys). It may affect the joints. It may affect the skeletal muscles. It may affect behavior/central nervous system (depression, headache, tremors, ataxia, hyperesthesia, stupor, sedation, fatigue, excitement, seizures, coma).

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated skin contact may cause defatting and drying of the skin, and brittle nails. Prolonged or repeated inhalation may affect the brain. Prolonged or repeated inhalation may affect the blood (changes in red blood cell count, granulocytopenia). Prolonged or repeated inhalation may affect the cardiovascular system. Prolonged or repeated inhalation may affect the thyroid (evidence of thyroid hyperfunction). Prolonged or repeated ingestion may affect the spleen. Prolonged or repeated ingestion may affect the bladder. Prolonged or repeated ingestion may affect the liver, and kidneys. Prolonged or repeated ingestion may affect the blood (normocytic anemia, macrocytosis). Prolonged or repeated inhalation may cause eye and throat irritation and bronchitis. Prolonged or repeated inhalation may cause nausea, gastritis, loss of appetite, and weight loss. Prolonged or repeated inhalation may cause central nervous system effects such as weakness, dizziness, drowsiness, and vertigo.

Sensitization: No information available

Mutagenic Effects: May affect genetic material
Sex Chromosome Loss and Nondisjunction in Saccharomyces cerevisiae (yeast)
Cytogenetic analysis (Hamster fibroblast)

Carcinogenic effects: Not classifiable as a human carcinogen.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Acetone	Not listed	A4 Not Classifiable as a Human Carcinogen	Not listed	Not listed	Not listed	Not listed

Benzene	Group 1 - Carcinogenic to Humans- Monograph 100F [2012] Supplement 7 [1987] Monograph 29 [1982]	A1 Confirmed Human Carcinogen	Known Human Carcinogen	Present Cancer hazard - see 29 CFR 1910.1028	Present when used in feedstock containing more than 50% of Benzene by volume	Not listed
Formaldehyde	Group 1 - Carcinogenic to Humans - Monograph 100F [2012] Monograph 88 [2006] Monograph 62 [1995] Supplement 7 [1987]	A2 Suspected Human Carcinogen	Known Human Carcinogen	Present see 29 CFR 1910.1048	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)
IARC (International Agency for Research on Cancer)
NTP (National Toxicology Program)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity Suspected of damaging fertility or the unborn child

Reproductive Effects: No information available
Developmental Effects: Possible risk of harm to the unborn child
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure Respiratory system. central nervous system.
STOT - repeated exposure No information available
Target Organs: Skin. Central nervous system. Peripheral nervous system. Kidneys. Liver.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Acetone - 67-64-1
Freshwater Fish Species Data: 4.74 - 6.33 mL/L LC50 Oncorhynchus mykiss 96 h 1
8300 mg/L LC50 Lepomis macrochirus 96 h 1
6210 - 8120 mg/L LC50 Pimephales promelas 96 h static 1
Water Flea Data: 10294 - 17704 mg/L EC50 Daphnia magna 48 h
12600 - 12700 mg/L EC50 Daphnia magna 48 h

Benzene - 71-43-2
Freshwater Algae Data: 29 mg/L EC50 Pseudokirchneriella subcapitata 72 h
Freshwater Fish Species Data: 10.7-14.7 mg/L LC50 Pimephales promelas 96 h flow-through 1
22330-41160 µg/L LC50 Pimephales promelas 96 h static 1
70000-142000 µg/L LC50 Lepomis macrochirus 96 h static 1
22.49 mg/L LC50 Lepomis macrochirus 96 h static 1
28.6 mg/L LC50 Poecilia reticulata 96 h static 1
5.3 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1

Acetone - 67-64-1

Water Flea Data: 8.76 - 15.6 mg/L EC50 Daphnia magna 48 h
10 mg/L EC50 Daphnia magna 48 h

Formaldehyde - 50-00-0

Freshwater Fish Species Data: 0.032 - 0.226 mL/L LC50 Oncorhynchus mykiss 96 h flow-through 1
100 - 136 mg/L LC50 Oncorhynchus mykiss 96 h static 1
22.6 - 25.7 mg/L LC50 Pimephales promelas 96 h flow-through 1
23.2 - 29.7 mg/L LC50 Pimephales promelas 96 h static 1
1510 µg/L LC50 Lepomis macrochirus 96 h static 1
41 mg/L LC50 Brachydanio rerio 96 h static 1

Water Flea Data: 11.3 - 18 mg/L EC50 Daphnia magna 48 h
2 mg/L LC50 Daphnia magna 48 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Acetone	None	None	None	U002 Ignitable waste
Benzene	None	None	None	U019 Ignitable waste, Toxic waste
Formaldehyde	None	None	None	U122

14. TRANSPORT INFORMATION

DOT

UN-No: UN1090
Proper Shipping Name: Acetone
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
ERG No: 127
Marine Pollutant No data available
DOT RQ (lbs): 5000 lbs./2270 kg
Special Provisions No Information available
Symbol(s): R5

TDG (Canada)

UN-No: UN1090
Proper Shipping Name: Acetone
Hazard Class: 3

14. TRANSPORT INFORMATION

Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No Information available

ADR

UN-No: UN1090
Proper Shipping Name: Acetone
Hazard Class: 3
Packing Group: II
Subsidiary Risk: No information available

IMO / IMDG

UN-No: UN1090
Proper Shipping Name: Acetone (Acetone solutions)
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No information available
EMS: F-E

RID

UN-No: UN1090
Proper Shipping Name: Acetone
Hazard Class: 3
Subsidiary Risk: 3
Packing Group: II

ICAO

UN-No: UN1090
Proper Shipping Name: Acetone
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II

IATA

UN-No: UN1090
Proper Shipping Name: Acetone
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 3H
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Acetone	Present	Present KE-29367	Present	Present (2)-542	Present	Present	Present 200-662-2
Benzene	Present	Present KE-02150	Present	Present (3)-1	Present	Present	Present 200-753-7
Formaldehyde	Present	Present KE-17074	Present	Present (2)-482	Present	Present	Present 200-001-8

U.S. Regulations

Acetone

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: Present (sn 006)
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
= 1 lb RQ (land/water)
= 5000 lb RQ (air)
Louisana Reportable Quantity List for Pollutants: Listed
California Directors List of Hazardous Substances: Present

FDA - Direct Food Additives 21 CFR 173.210

FDA - 21 CFR - Total Food Additives 173.210 175.105 175.320 176.180 176.300 177.2600 73.1 73.30 73.345 73.615

Benzene

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0197
New Jersey (EHS) List: 0197 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Special hazardous substance
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Michigan - Critical Materials List: Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
10 lb RQ
1 lb RQ
Connecticut - Carcinogenic Substances: Present
Louisana Reportable Quantity List for Pollutants: 10lbfinal RQreceives an adjustable RQ of 10 lbs based on potential carcinogenicity in August 14, 1989 final rule
4.54kgfinal RQreceives an adjustable RQ of 10 lbs based on potential carcinogenicity in August 14, 1989 final rule
California Directors List of Hazardous Substances: Present

FDA - 21 CFR - Total Food Additives 172.560 175.105

Formaldehyde

Massachusetts RTK: Present
Massachusetts EHS: carcinogen; extraordinarily hazardous
New Jersey RTK Hazardous Substance List: 0946
New Jersey (EHS) List: 0946 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
New Jersey TCPA - EHS: 175lbTQ
15000lbTQ
Pennsylvania RTK: Environmental hazard
Special hazardous substance
Pennsylvania RTK - Environmental Hazard List Present
Pennsylvania RTK - Special Hazardous Substances Present
Michigan PSM HHC: = 1000 lb TQ
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
100 lb RQ
1 lb RQ
Louisana Reportable Quantity List for Pollutants: 100lbfinal RQ
45.4kgfinal RQ
California Directors List of Hazardous Substances: Present

FDA - Direct Food Additives 21 CFR 173.340

FDA - 21 CFR - Total Food Additives 173.340 175.105 175.210 175.300 176.170 176.180 176.200 177.1200 177.2410 178.3120 573.460

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:
WARNING: This product contains a chemical known to the State of California to cause cancer. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Acetone	Not Listed	Not Listed	Not Listed	Not Listed
Benzene	carcinogen	developmental toxicity	male reproductive toxicity	Not Listed
Formaldehyde	carcinogen	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting *de minimis*
Acetone	5000 lb final RQ 2270 kg final RQ	None	None	None	None
Benzene	10 lb final RQ 4.54 kg final RQ	None	None	None	0.1 % de minimis concentration
Formaldehyde	100 lb final RQ 45.4 kg final RQ	100 lb EPCRA RQ	None	None	0.1 % de minimis concentration

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Acetone	Not Applicable	Not Applicable
Benzene	Not Applicable	Not Applicable
Formaldehyde	Not Applicable	Not Applicable

Canada

WHMIS hazard class:
B2 Flammable liquid
D2B Toxic materials

Acetone
B2 D2B
Benzene
B2 D2A D2B
Formaldehyde
A B1 D1A D2A D2B
B3 D1A D2A D2B E regulated under Formol

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Acetone	1 %
Benzene	0.1 %
Formaldehyde	0.1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Acetone	Present	Not Listed
Benzene	Present	Not Listed
Formaldehyde	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances
Acetone	Not listed

Benzene	Present
Formaldehyde	Present

Components	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Acetone	Not listed
Benzene	Not listed
Formaldehyde	Not listed

EU Classification

R-phrase(s)

R11 - Highly flammable.
R36 - Irritating to eyes.
R66 - Repeated exposure may cause skin dryness or cracking.
R67 - Vapors may cause drowsiness and diziness.

S -phrase(s)

S 9 - Keep container in a well-ventilated place.
S16 - Keep away from sources of ignition - No smoking.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Components	Classification	Concentration Limits:	Safety Phrases
Acetone	F; R11 Xi; R36 R66 R67	No information	S2 S9 S16 S26
Benzene	F; R11 Xi; R36/38 Carc.Cat.1; R45 Muta.Cat.2; R46 T; R48/23/24/25 Xn; R65	No information	S53 S45
Formaldehyde	C;R34 Carc. Cat.3;R40 R23 R43 T;R23/24/25	0.2%<=C<1% Xi;R43 1%<=C<5% Xn;R40-43 25%<=C T;R23/24/25-34-40-43 5%<=C<25% Xn;R20/21/22-36/37/38-40-43	S(1/2)-S26-S36/37/39-S45-S51

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xi - Irritant.
F - Highly flammable.

Xi

F

16. OTHER INFORMATION

Preparation Date: 5/15/2016
Revision Date: 10/20/2016

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. ScienceLab.com, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, ScienceLab.com, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet