Safety Data Sheet
Acetone
Revision Date: 6/15/15

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
Trade name: Acetone
Product code(s): 400457, 400458, 400460, 400461

1.2 Relevant identified uses
Laboratory Reagent

Supplier: HealthLink, Inc
3611 St Johns Bluff Road, Suite 1
Jacksonville, FL 32224
800-638-2625
Monday-Friday: 8:00 - 5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 1/15/2015
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview
GHS Labeling Element: Pictogram

Signal Word: Danger

Hazard statement(s):
H225; Highly flammable liquid and vapor (Cat 2)
H315; Causes skin irritation Cat 2)
H320; Causes serious eye irritation (Cat 2/2A).
H335; May cause respiratory irritation, and drowsiness or dizziness (Cat 3)
Repeated exposure may cause skin dryness or cracking.

Precautionary statement(s):
P210; Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260; Avoid breathing fume/vapors
P262; Do not get in eyes, on skin or clothing

OSHA Hazards
Flammable liquid, Target Organ Effect, Irritant, Toxic by skin absorption, Carcinogen

Target Organs
Liver, Kidney, Nerves, Heart

GHS Classification
Flammable liquids (Category 2), Skin irritation (Category 2), Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)
HMIS Classification
Health Hazard: 1
Flammability: 3
Physical Hazards: 0

NFPA Rating
Health Hazard: 1
Fire: 3
Reactivity Hazard: 0

Potential Health Effects
Inhalation - Toxic if inhaled. Causes respiratory tract irritation.
Skin - Toxic if absorbed through skin. Causes skin irritation.
Eyes - Causes eye irritation.
Ingestion - Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion: Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst with the risk of a subsequent explosion. Run-off to sewer may create fire or explosion hazard.

Extinguishing media: Use dry chemical, CO2, water spray (fog) or foam.
Not suitable: Do not use water jet.
Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on explosion hazards: Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions  Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Spill  Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7. HANDLING AND STORAGE
Handling  Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use empty containers to retain product, residue can be hazardous. Do not reuse container.
Storage  Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Ingredient Exposure limits

Acetone  ACGIH (United States, 1996).
STEM: 1782 mg/m³ 15 minute(s).
TWA: 1188 mg/m³ 8 hour(s).
OSHA (United States, 1989).
STEM: 2400 mg/m³ 15 minute(s).
TWA: 1800 mg/m³ 8 hour(s).
ACGIH TLV (United States, 3/2012).
TWA: 500 ppm 8 hour(s).
TWA: 1188 mg/m³ 8 hour(s).
STEM: 750 ppm 15 minute(s).
STEM: 1782 mg/m³ 15 minute(s).
TWA: 750 ppm 8 hour(s).
TWA: 1800 mg/m³ 8 hour(s).
STEM: 1000 ppm 15 minute(s).
STEM: 2400 mg/m³ 15 minute(s).
NIOSH REL (United States, 1/2013).
TWA: 250 ppm 10 hour(s).
TWA: 590 mg/m³ 10 hour(s).
OSHA PEL (United States, 6/2010).
TWA: 1000 ppm 8 hour(s).
TWA: 2400 mg/m³ 8 hour(s).

Consult local authorities for acceptable exposure limits.

Engineering measures  Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection
Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Closed cup: 11.667°C (53°F)</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC</td>
<td>100 % (w/w)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in the following materials: water</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Closed cup: 11.667°C (53°F)</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Boiling/condensation pt</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
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</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions:</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>Hazardous polymerization:</td>
<td>Under normal conditions of storage and use, hazardous polymerization will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid:</td>
<td>Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.</td>
</tr>
<tr>
<td>Materials to avoid:</td>
<td>Highly reactive or incompatible with the following materials: oxidizing materials. Reactive or incompatible with the following materials: metals and acids.</td>
</tr>
<tr>
<td>Hazardous decomposition products:</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not occur.</td>
</tr>
<tr>
<td>Conditions of reactivity:</td>
<td>Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials. Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Oral LD50</td>
</tr>
<tr>
<td></td>
<td>no data available</td>
</tr>
<tr>
<td></td>
<td>Inhalation LC50</td>
</tr>
<tr>
<td></td>
<td>no data available</td>
</tr>
<tr>
<td></td>
<td>Dermal LD50</td>
</tr>
<tr>
<td></td>
<td>no data available</td>
</tr>
</tbody>
</table>
Other information on acute toxicity
no data available
Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
Eyes: no data available
Respiratory or skin sensitization
no data available
Germ cell mutagenicity
no data available
Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available
Aspiration hazard
no data available
Potential health effects
Inhalation Toxic if inhaled. Causes respiratory tract irritation.
Ingestion Toxic if swallowed.
Skin Toxic if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity
no data available
Persistence and degradability
no data available
Bioaccumulative potential
no data available
Mobility in soil
no data available
PBT and vPvB assessment
no data available
Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1090 Class: 3 Packing group: II
Proper shipping name: Acetone
Marine pollutant: No
Poison Inhalation Hazard: No
IMDG
UN number: 1090 Class: 3 Packing group: II
Proper shipping name: UN1090, Acetone, 3, II
Marine pollutant: No
IATA
UN number: 1090 Class: 3, Packing Group II
Proper shipping name: UN1090, Acetone, 3 II
TDG
UN No: 1090 Class 3, Packing Group II
Proper Shipping Name UN1090, Acetone, 3, II

15. REGULATORY INFORMATION

United States
HCS Classification:
- Flammable liquid
- Toxic material
- Irritating material
- Target organ effects

U.S. Federal regulations:
- TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
- SARA 302/304 List II: No products were found.
- SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
  - Acetone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard;

DEA List I Chemicals
Precursor Chemicals: Not listed
DEA List II Chemicals
Essential Chemicals: Listed

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

RTK: Acetone, CAS 67-64-1, CT, MA, MN, NJ, PA

California Prop. 65
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer level</th>
<th>Reproductive level</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage</th>
</tr>
</thead>
</table>

CANADA
WHMIS (Canada):
- Class B-2: Flammable liquid
- Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists:
- CEPA Toxic substances: The following components are listed: Volatile Organic compounds
- Canadian ARET: None of the components are listed.
- Canadian NPRI: NA

Volatile organic compounds
- Alberta Designated Substances: None of the components are listed.
- Ontario Designated Substances: None of the components are listed.
- Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL:
All components are listed or exempted.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations
International lists:
- Australia inventory (AICS): All components are listed or exempted.
- China inventory (IECSC): All components are listed or exempted.
- Japan inventory: All components are listed or exempted.
- Korea inventory: All components are listed or exempted.
- New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
- Philippines inventory (PICCS): All components are listed or exempted.
Notice to reader
This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labeling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Healthlink be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.