Material Safety Data Sheet

Section 1 Chemical Product and Company Identification

MSDS Name: Acetone
Product Code: 40-1900-10, 40-1900-50
Synonyms: Dimethylketone; 2-propanone; dimethylketal
Company identification: Severn Biotech Limited
Unit 2 Park Lane Industrial Estate
Kidderminster
Worcestershire
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Section 2 - Composition, Information on Ingredients

CAS: 67-64-1
Chemical Name: Acetone
%: 99-100
EINECS: 200-662-2

Risk Phrases: F - Highly Flammable, R11, R36, R66, R67.

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOUR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.

Potential Health Effects

Eye: Vapours are irritating to the eyes. Splashes may cause severe irritation, with stinging, tearing, redness and pain.
Skin: Irritating due to defatting action on skin. Causes redness, pain, drying and cracking of the skin.
Ingestion: Swallowing small amounts is not likely to produce harmful effects. Ingestion of larger amounts may produce abdominal pain, nausea and vomiting. Aspiration into lungs can produce severe lung damage and is a medical emergency. Other symptoms are expected to parallel inhalation.
Inhalation: Inhalation of vapours irritates the respiratory tract. May cause coughing, dizziness, dullness, and headache. Higher concentrations can produce central nervous system depression, narcosis, and unconsciousness.
Chronic: Prolonged or repeated skin contact may produce severe irritation or dermatitis. Aggravation of Pre-existing Conditions: Use of alcoholic beverages enhances toxic effects. Exposure may increase the toxic potential of chlorinated hydrocarbons, such as chloroform, trichloroethane.

Section 4 - First Aid Measures

Eye: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.
Skin: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Ingestion: Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

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

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.
Fire: Flash point: -20oC CC
Autoignition temperature: 465oC
Extremely Flammable Liquid and Vapour! Vapour may cause flash fire.
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or
other positive pressure mode.
Explosion: Above flash point, vapour-air mixtures are explosive within flammable limits noted above. Vapours can flow along surfaces to distant ignition source and flash
back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when
heated. This material may produce a floating fire hazard. Sensitive to static discharge.
Extinguishing Media: Dry chemical, alcohol foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire exposed containers cool, dilute spills to non-flammable mixtures, protect personnel attempting to stop leak and disperse vapours.

Section 6 - Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapours, to protect personnel attempting to stop leak, and to flush spills away from exposures.

Section 7 - Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product.

Section 8 - Exposure Controls, Personal Protection

Airborne Exposure Limits: Acetone:
-OSHA Permissible Exposure Limit (PEL):
1000 ppm (TWA)

-ACGIH Threshold Limit Value (TLV):
500 ppm (TWA), 750 ppm (STEL) A4 - not classifiable as a human carcinogen

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.
Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapor respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece organic vapour respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Section 9 - Physical and Chemical Properties

Physical State:	Clear, volatile liquid.
Colour:	colourless
Odour:	Fragrant, mint-like
pH:	Not available
Vapour Pressure:	400 mm Hg @ 39.5oC
Vapour Density:	2.0 (Air = 1)
Evaporation Rate:	ca. 7.7
Viscosity:	Non-viscous
Boiling Point:	56.5oC @ 760 mm Hg
Freezing/Melting Point:	-95oC
Decomposition Temperature:	Not available
Solubility in water:	Miscible in all proportions in water.
Specific Gravity/Density:	0.79 @ 20oC/4oC
Molecular Formula:	(CH3)2CO
Molecular Weight:	58.08

Section 10 - Stability and Reactivity

Chemical Stability: Stable under ordinary conditions of use and storage.
Conditions to Avoid: Heat, flames, ignition sources and incompatibles.
Incompatibilities with Other Materials: Concentrated nitric and sulphuric acid mixtures, oxidizing materials, chloroform, alkalis, chlorine compounds, acids, potassium t-butoxide.
Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization will not occur.

Section 11 - Toxicological Information

CAS: 67-64-1
LD50/LC50: Unrecorded Human LDLO: 1159 mg/Kg; Oral rat LD50: 5800 mg/kg; Inhalation rat LC50: 50,100mg/m3; Oral mouse LD50: 3000 mg/Kg; Inhalation mouse LC50:44 g/m3; Irritation eye human: 500 ppm; Irritation eye rabbit, Standard Draize, 20 mg severe; Irritation skin rabbit: 395 mg open mid.
Carcinogenicity: Not found to be carcinogenic.
Other: investigated as a tumorigen, mutagen, and reproductive effector.

Section 12 - Ecological Information

When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material is expected to readily biodegrade. When released to water, this material is expected to quickly evaporate. This material has a log octanol-water partition coefficient of less than 3.0. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photo chemically produced hydroxyl radicals. When released into the air, this material may be moderately degraded by photolysis. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.

Environmental Toxicity:
This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.

Persistence and Degradability:
Acetone is slightly persistent in water, with a half-life of between 2 to 20 days. The half-life of a pollutant is the amount of time it takes for one-half of the chemical to be degraded. About 50% of acetone will eventually end up in air; the rest will end up in the water.

Bioaccumulative Potential:
The concentration of acetone found in fish tissues is expected to be about the same as the average concentration of acetone in the water from which the fish was taken.

Section 13 - Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved incinerator or disposed in an approved waste facility. Processing, use or contamination of this product may change the waste management options. Local disposal regulations may differ from Governmental disposal regulations. Dispose of container and unused contents in accordance with Governmental, District and local requirements.

Section 14 - Transport Information

Shipping Name:	ACETONE
Hazard Class:	3
UN Number:	UN1090
Packing Group:	II

Section 15 - Regulatory Information

European/International Regulations
European Labelling in Accordance with EC Directives
Hazard Symbols: F - Highly Flammable.
Risk Phrases:
R11, R36, R66, R67
Safety Phrases:
S9, S16, S26
CAS: 67-64-1

Section 16 - Other Information

MSDS Creation Date: 16/06/2008
Revision number: 3
Revision Date: 05/08/2009

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