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## MATERIAL SAFETY DATA SHEET

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**Acetone, 99+%**  
95389

\*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\*

MSDS Name: Acetone, 99+%

2-Propanone

Company Identification: Acros Organics N.V.  
One Reagent Lane  
Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01  
For emergencies in the US, call CHEMTREC: 800-424-9300

\*\*\*\* SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\*

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may include: headache, excitement, fatigue, nausea, vomiting, stupor, and coma.

Inhalation:

Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause motor incoordination and speech abnormalities. May cause narcotic effects.

Chronic:

Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation may cause effects similar to those of acute inhalation.

\*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\*

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

Skin:

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Treat symptomatically and supportively.

Antidote:

No specific antidote exists.

\*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\*

General Information:

Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Use water spray to keep fire-exposed containers cool. Vapor may cause flash fire.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature: 465 deg C ( 869.00 deg F)

Flash Point: -20 deg C ( -4.00 deg F)

NFPA Rating: health-1; flammability-3; reactivity-0

Explosion Limits, Lower: 2.50 vol %

Upper: 13.00 vol %

\*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\*

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Remove all sources of ignition.

\*\*\*\* SECTION 7 - HANDLING and STORAGE \*\*\*\*

Handling:

Wash thoroughly after handling. Wash hands before eating. Use only in a well ventilated area. Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Do not get on skin or in eyes. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container. Flammables-area.

\*\*\*\* SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\*

Engineering Controls:

Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Acetone, 99+%	500 ppm ; 1188 mg/m3; 750 ppm STEL; 1782 mg/m3 STEL	250 ppm TWA; 590 mg/m3 TWA 2500 ppm IDLH (lower explosive level)	1000 ppm TWA; 2400 mg/m3 TWA

OSHA Vacated PELs:

Acetone, 99+%:  
750 ppm TWA; 1800 mg/m3 TWA

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

\*\*\*\* SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\*

Physical State: Liquid  
 Appearance: clear  
 Odor: Sweetish odor.  
 pH: Not available.  
 Vapor Pressure: 247 mbar @ 20 C  
 Vapor Density: 2.00  
 Evaporation Rate: 7.7 (n-Butyl acetate=1)

Viscosity: 0.32 mPas 20 de  
Boiling Point: 56 deg C @ 760.00mm Hg  
Freezing/Melting Point: -94 deg C  
Decomposition Temperature: Not available.  
Solubility: soluble  
Specific Gravity/Density: .7910g/cm3  
Molecular Formula: C3H6O  
Molecular Weight: 58.08

## \*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\*

Chemical Stability:  
Stable.

Conditions to Avoid:  
Mechanical shock, incompatible materials, ignition sources, moisture, excess heat.

Incompatibilities with Other Materials:  
Bases, oxidizing agents, reducing agents, moisture. Forms explosive mixtures with hydrogen peroxide, acetic acid, nitric acid, nitric acid+sulfuric acid, chromic anhydride, chromyl chloride, nitrosyl chloride, hexachloromelamine, nitrosyl perchlorate, nitryl perchlorate, permonosulfuric acid, thiodiglycol+hydrogen peroxide, potassium ter-butoxide, sulfur dichloride, 1-methyl-1,3-butadiene, bromoform, carbon, air, chloroform, thitriazylperchlorate.

Hazardous Decomposition Products:  
Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

## \*\*\*\* SECTION 11 - TOXICOLOGICAL INFORMATION \*\*\*\*

RTECS#:

CAS# 67-64-1: AL3150000

LD50/LC50:

CAS# 67-64-1: Inhalation, rat: LC50 =50100 mg/m3/8H; Oral, mouse: LD50 = 3 gm/kg; Oral, rabbit: LD50 = 5340 mg/kg; Oral, rat: LD50 = 5800 mg/kg; Skin, rabbit: LD50 = 20 gm/kg.

Carcinogenicity:

Acetone, 99+% -

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Epidemiology:

No information available.

Teratogenicity:

No developmental toxic effects were seen in rats and mice exposed to atmospheric concentrations of acetone vapour up to 11,000 ppm and 6000 ppm respectively 6 hr/day for 7 day. [Mast, T.J; et al. Energy Res. Abstr. 1989, 14(7), Abstr. No. 13672]

Reproductive Effects:

Fertility: post-implantation mortality. Ihl, mam: TCLo=31500 ug/m3/24H (1-13D preg)

Neurotoxicity:

No information available.

Mutagenicity:

Cytogenetic analysis: hamster fibroblast, 40 g/L Sex chromosome loss/non-disjunction: S.cerevisiae, 47600 ppm Salmonella typhimurium TA92, TA94, TA98, TA100, TA1535, TA1537 with metabolic activation negative. Chinese hamster fibroblast (24 hr) without metabolic activation induced chromosomal aberrations. [Ishidate, M; et al. Food Chem. Toxicol. 1984, 22(8), 623-636]

Other Studies:

None.

## \*\*\*\* SECTION 12 - ECOLOGICAL INFORMATION \*\*\*\*

## Ecotoxicity:

Rainbow trout LC50:5540 mg/L/96H Sunfish (tap water), death at 14250 ppm/24H Mosquito fish (turbid water) TLm=13000 ppm/48H Harlequin fish LC50:5700 ppm/24H Daphnia magna ED50:10 mg/l/24,48H Brine shrimp LD50:2100 mg/l/24,48H at 24°C

## Environmental Fate:

Volatilizes, leeches, and biodegrades when released to soil.

## Physical/Chemical:

No information available.

## Other:

None.

## \*\*\*\* SECTION 13 - DISPOSAL CONSIDERATIONS \*\*\*\*

Dispose of in a manner consistent with federal, state, and local regulations.

RCRA D-Series Maximum Concentration of Contaminants:

None listed.

RCRA D-Series Chronic Toxicity Reference Levels: None listed.

RCRA F-Series: None listed.

RCRA P-Series: None listed.

RCRA U-Series: CAS# 67-64-1: waste number U002 (Ignitable waste).

CAS# 67-64-1 is banned from land disposal according to RCRA.

## \*\*\*\* SECTION 14 - TRANSPORT INFORMATION \*\*\*\*

## US DOT

Shipping Name: ACETONE

Hazard Class: 3

UN Number: UN1090

Packing Group: II

## IMO

Shipping Name: ACETONE

Hazard Class: 3.1

UN Number: 1090

Packing Group: II

## IATA

Shipping Name: ACETONE

Hazard Class: 3

UN Number: 1090

Packing Group: II

## RID/ADR

Shipping Name: ACETONE

Dangerous Goods Code: 3(3B)

UN Number: 1090

## Canadian TDG

Shipping Name: ACETONE

Hazard Class: 3

UN Number: UN1090

Other Information: FLASHPOINT -20 C

## \*\*\*\* SECTION 15 - REGULATORY INFORMATION \*\*\*\*

## US FEDERAL

## TSCA

CAS# 67-64-1 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

CAS# 67-64-1: export notification required - Section 4  
TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

CAS# 67-64-1: final RQ = 5000 pounds (2270 kg)

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 67-64-1: acute, chronic, flammable, sudden release of pressure.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority

ED KINGDOM:TWA 1000 ppm (2400 mg/m3);STEL 1250 ppm. OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV. OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

\*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*

MSDS Creation Date: 8/25/1995 Revision #3 Date: 9/02/1997

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