Material Safety Data Sheet
Butyraldehyde, 99%

Section 1 - Chemical Product and Company Identification

MSDS Name: Butyraldehyde, 99%
Catalog Numbers: 10809-0000, 10809-0010, 10809-1000
Synonyms: Butanal

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaalaan 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS# Chemical Name: % EINECS#
123-72-8 Butyraldehyde 99% 204-646-6

Hazard Symbols: F

Risk Phrases: 11

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Highly flammable. Air sensitive.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. Contact with the skin defats the skin.
Ingestion: May cause irritation of the digestive tract. May cause nausea and vomiting.

Inhalation: May cause respiratory tract irritation. May cause narcotic effects in high concentration. May be harmful if inhaled.

Chronic:

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid. Wash mouth out with water.

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

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Will burn if involved in a fire. Flammable liquid and vapor.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

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. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool.

Section 7 - Handling and Storage

Handling: Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Take precautionary measures against static discharges.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. Store under nitrogen.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

CAS# 123-72-8:
Germany: 20 ppm TWA; 64 mg/m3 TWA

Personal Protective Equipment
Eyes: Wear chemical splash goggles.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid
Color: colorless
Odor: stench
pH: Not available
Vapor Pressure: 91.5 mm Hg @ 20 deg C
Viscosity: 0.043 Ps @ 20 deg C
Boiling Point: 75 deg C @ 760.00mm Hg (167.00°F)
Freezing/Melting Point: -96 deg C (-140.80°F)
Autoignition Temperature: 230 deg C (446.00 deg F)
Flash Point: -6 deg C (21.20 deg F)
Explosion Limits: Lower: 1.40 vol %
Explosion Limits: Upper: 12.50 vol %
Decomposition Temperature: Not available
Solubility in water: 7.1% in water (25°C)
Specific Gravity/Density: .8170g/cm3
Molecular Formula: C4H8O
Molecular Weight: 72.11

Section 10 - Stability and Reactivity

Chemical Stability: May form explosive peroxides on prolonged storage.
Conditions to Avoid: Incompatible materials, ignition sources, exposure to air.
Incompatibilities with Other Materials
Oxidizing agents, strong reducing agents, strong acids, 
strong bases.

Hazardous Decomposition Products
Carbon monoxide, carbon dioxide.

Hazardous Polymerization
May occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 123-72-8: ES2275000

RTECS:
CAS# 123-72-8: Draize test, rabbit, eye: 20 mg/24H Moderate;
Inhalation, mouse: LC50 = 44610 mg/m3/2H;
Inhalation, mouse: LC50 = 36000 mg/m3/2H;
Inhalation, rat: LC50 = 6400 ppm/4H;
Oral, rat: LD50 = 2490 mg/kg;
Oral, rat: LD50 = 5890 mg/kg;
Skin, rabbit: LD50 = 3560 uL/kg;

LD50/LC50:

Other:
Butyraldehyde - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA
Carcinogenicity: Prop 65.

Other:
See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity:
Daphnia: EC50: 195 mg/l; 24H;
Fish: Pimephals prome: LC50: 25.8 mg/l; 96H;

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

IATA  IME  RID/ADR
Shipping Name: BUTYRALDEHYDE BUTYRALDEHYDE BUTYRALDEHYDE
Hazard Class: 3 3 3
UN Number: 1129 1129 1129
Packing Group: II II II

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: F
Risk Phrases:
R 11 Highly flammable.

Safety Phrases:
S 9 Keep container in a well-ventilated place.
S 29 Do not empty into drains.
S 33 Take precautionary measures against static discharges.

WGK (Water Danger/Protection)
CAS# 123-72-8: 1

Canada
CAS# 123-72-8 is listed on Canada's DSL List

US Federal
TSCA
CAS# 123-72-8 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 7/16/1996
Revision #1 Date 5/17/2002
Revisions were made in Sections: General revision.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company 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 howsoever arising, even if the company has been advised of the possibility of such damages.

-----------------------------------------------