

International Chemical Safety Cards

ISOBUTYRALDEHYDE

ICSC: 0902

ISOBUTYRALDEHYDE
2-Methyl-1-propanal
Isobutanal
 $C_4H_8O / (CH_3)_2CHCHO$
Molecular mass: 72.1

CAS # 78-84-2
RTECS # NQ4025000
ICSC # 0902
UN # 2045

| TYPES OF HAZARD/ EXPOSURE | ACUTE HAZARDS/ SYMPTOMS | PREVENTION | FIRST AID/ FIRE FIGHTING |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| FIRE | Highly flammable. Gives off irritating or toxic fumes (or gases) in a fire. | NO open flames, NO sparks, and NO smoking. | Powder, AFFF, foam, carbon dioxide. |
| EXPLOSION | Vapour/air mixtures are explosive. | Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling. | In case of fire: keep drums, etc., cool by spraying with water. |
| EXPOSURE | | STRICT HYGIENE! | IN ALL CASES CONSULT A DOCTOR! |
| • INHALATION | Sore throat. Cough. Burning sensation. Shortness of breath. Laboured breathing. Symptoms may be delayed (see Notes). | Ventilation, local exhaust, or breathing protection. | Fresh air, rest. Artificial respiration if indicated, and refer for medical attention. |
| • SKIN | Pain. Redness. Blisters. Skin burns. | Protective gloves. Protective clothing. | Rinse skin with plenty of water or shower, and refer for medical attention. |
| • EYES | Pain. Redness. Severe deep burns. Loss of vision. ALTI | Safety goggles. Face shield. | First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor. |
| • INGESTION | Burning sensation. Abdominal cramps. Shock or collapse | Do not eat, drink, or smoke during work. | Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink, and refer for medical attention. |
| SPILLAGE DISPOSAL | STORAGE | PACKAGING & LABELLING | |
| Evacuate danger area in case of large spills. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer (extra personal protection: | Fireproof, separated from strong oxidants, strong bases, strong acids, strong reducing agents. Well closed. | UN Haz Class: 3 UN Pack Group: II | |

sewer (extra personal protection, complete protective clothing including self-contained breathing apparatus).

SEE IMPORTANT INFORMATION ON BACK

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Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities © IPCS CEC 1990

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| I M P O R T A N T D A T A | PHYSICAL STATE; APPEARANCE: COLOURLESS LIQUID, WITH PUNGENT ODOUR. | ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation and by ingestion. |
| | PHYSICAL DANGERS: The vapour is heavier than air and may travel along the ground; distant ignition possible. | INHALATION RISK: |
| | CHEMICAL DANGERS: The substance decomposes on heating or on burning producing acrid smoke and fumes. Reacts with oxidants, strong reductants and strong bases. | EFFECTS OF SHORT-TERM EXPOSURE: The substance is corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. Inhalation of the substance may cause lung oedema (see Notes). Exposure may result in death. Medical observation is indicated. |
| | OCCUPATIONAL EXPOSURE LIMITS (OELs): TLV not established. MAK not established. | EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: |
| PHYSICAL PROPERTIES | Boiling point: 63-64°C Melting point: -65°C Relative density (water = 1): 0.8 Solubility in water, g/100 ml at 20°C: 6.7 Vapour pressure, kPa at 20°C: 15.3 Relative vapour density (air = 1): 2.5 | Relative density of the vapour/air-mixture at 20°C (air = 1): 1.2 Flash point: -25°C Auto-ignition temperature: 196°C Explosive limits, vol% in air: 1.6-10.6 Octanol/water partition coefficient as log Pow: 1.2 |
| ENVIRONMENTAL DATA | | |
| NOTES | | |
| The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate spray, by a doctor or a person authorized by him/her, should be considered. Rinse contaminated clothes (fire hazard) with plenty of water. | | |
| Transport Emergency Card: TEC (R)-693 NFPA Code: H2; F3; R1; | | |
| ADDITIONAL INFORMATION | | |
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| IMPORTANT LEGAL NOTICE: | the use which might be made of this information. This card contains the collective views of the IPCS Peer Review Committee and may not reflect in all cases all the detailed requirements included in national legislation on the subject. The user should verify compliance of the cards with the relevant legislation in the country of use. |
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