

5.4 Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid breathing vapours, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510): Flammable liquids

7.3 Specific end uses(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
isoamyl acetate	123-92-2	TWA	100.000000 ppm 525.000000 mg/m3	USA, NIOSH Recommended Exposure Limits
		TWA	100.000000 ppm 525.000000 mg/m3	USA, Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	Remarks	The value in mg/m3 is approximate		
		TWA	50.000000 ppm	USA, ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract Irritation		
		STEL	100.000000 ppm	USA, ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract Irritation		
		Upper Respiratory Tract Irritation		
		TWA	50 ppm	USA, ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract Irritation		
		STEL	100 ppm	USA, ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract Irritation		

		STEL	100 ppm 532 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		PEL	50 ppm 266 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
8.2	Exposure controls			
	Appropriate engineering controls			
	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.			
	Personal protective equipment			
	Eye/face protection			
	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).			
	Skin protection			
	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.			
	Splash contact			
	Material: butyl-rubber			
	Minimum layer thickness: 0.3 mm			
	Break through time: 60 min			
	Material tested: Butolact® (KOL 897 / Aldrich Z677647, Size M)			
	data source: KOL GmbH, D-36124 Eichenzell, phone +49 (0)6559 87300, e-mail sales@kcl.de, test method: EN374			
	If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.			
	Body Protection			
	Impervious clothing, Flame retardant antistatic protective clothing.. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.			
	Respiratory protection			
	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).			
	Control of environmental exposure			
	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.			

9.	PHYSICAL AND CHEMICAL PROPERTIES
9.1	Information on basic physical and chemical properties
a)	Appearance
b)	Form: liquid
c)	Odour
d)	Odour Threshold
e)	pH
f)	Melting point/freezing point
g)	Initial boiling point and boiling range
h)	Flash point
i)	Form: liquid
j)	like fruit
k)	No data available
l)	No data available
m)	Melting point/range: -78 °C (-108 °F) - lit.
n)	Initial boiling point and boiling range
o)	142 °C (288 °F) at 1,008 hPa (756 mmHg) - lit.
p)	Flash point
q)	25 °C (77 °F) - closed cup

h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	Upper explosion limit: 7.5 %(V) Lower explosion limit: 1 %(V)
k)	Vapour pressure	4.5 hPa (3.4 mmHg) at 20 °C (68 °F)
l)	Vapour density	4.5
m)	Relative density	0.876 g/cm3 at 25 °C (77 °F)
n)	Water solubility	2 g/l at 25 °C (77 °F)
o)	Partition coefficient: n-octanol/water	log Pow: 2.7 at 35 °C (95 °F)
p)	Auto-ignition temperature	379 °C (714 °F) at 1.013.25 hPa (760.00 mmHg)
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information

Solubility in other solvents
Alcohol - completely miscible
Ether - completely miscible
Relative vapour density
4.5

10. STABILITY AND REACTIVITY

10.1	Reactivity	No data available
10.2	Chemical stability	Stable under recommended storage conditions.
10.3	Possibility of hazardous reactions	Vapours may form explosive mixture with air.
10.4	Conditions to avoid	Heat, flames and sparks.
10.5	Incompatible materials	Oxidizing agents, Strong acids and strong bases, Reducing agents
10.6	Hazardous decomposition products	Hazardous decomposition products formed under fire conditions: - Carbon oxides Other decomposition products: - No data available In the event of fire, see section 5

11. TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
	Acute toxicity	
	LD50 Oral - Rabbit - 7.400 mg/kg	
	Inhalation: No data available	
	Dermal: No data available	
	No data available	

	Skin corrosion/irritation	No data available
	Serious eye damage/eye irritation	No data available
	Respiratory or skin sensitisation	No data available
	Germ cell mutagenicity reverse mutation assay S. typhimurium	Result: negative
	Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
	Reproductive toxicity	No data available
	Specific target organ toxicity - single exposure	No data available
	Specific target organ toxicity - repeated exposure	No data available
	Aspiration hazard	No data available
	Additional Information	RTECS: NS9800000
	Contact with eyes can cause: Redness, Blurred vision, Provokes tears, sore throat, Abdominal pain, Nausea, Vomiting, Dizziness, Drowsiness, Cough, chest pain, Difficulty in breathing	
	Stomach - Irregularities - Based on Human Evidence	
	Stomach - Irregularities - Based on Human Evidence	

12. ECOLOGICAL INFORMATION

12.1	Toxicity	
	Toxicity to fish	static test NOEC - Brachydanio rerio (zebrafish) - 21.5 mg/l - 96 h (OECD Test Guideline 203)
	Toxicity to algae	static test EC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)
12.2	Persistence and degradability	
	Biodegradability	Result: - Readily biodegradable
12.3	Bioaccumulative potential	No bioaccumulation is to be expected (log Pow <= 4).
12.4	Mobility in soil	No data available
12.5	Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6	Other adverse effects	

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1104 Class: 3

Proper shipping name: Amyl acetates

Reportable Quantity (RQ): 5000 lbs

Packing group: III

Poison Inhalation Hazard: No

IMDG

UN number: 1104 Class: 3

Proper shipping name: AMYL ACETATES

EMS-No: F-E, S-D

IATA

UN number: 1104 Class: 3

Proper shipping name: Amyl acetates

Packing group: III

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

Isoamyl acetate

CAS-No.
123-92-2

Revision Date
1993-04-24

Pennsylvania Right To Know Components

Isoamyl acetate

CAS-No.
123-92-2

Revision Date
1993-04-24

New Jersey Right To Know Components

Isoamyl acetate

CAS-No.
123-92-2

Revision Date
1993-04-24

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Flam. Liq.

Flammable liquids

Aldrich - W205508

Delivery 0654232779-000010 Purchase Order CC/HARMON

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Delivery 0654232779-000010 Purchase Order CC/HARMON

Page 7 of 8

Page 6 of 8

H226

Flammable liquid and vapour.

HMIS Rating

Health hazard: 0

Chronic Health Hazard: 0

Flammability: 3

Physical Hazard: 0

NFPA Rating

Health hazard: 0

Fire Hazard: 3

Reactivity Hazard: 0

Further information

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Product Safety - Americas Region

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