Printing date 24.06.2009 Revision: 24.06.2009

1 Identification of the substance/preparation and of the company/undertaking

· Product details

· Trade name: isobutyl acetate

Manufacturer/Supplier:

Asiatic Chemicals Pakistan

Address

3θ-Mussa Market 2nd Floor,

Opp Sindh Madarsah

Shahrah-e-Liaquat

Mobile

0092-320-4320301

Email asiatic-petro@cyber.net.pk

asiatic@asiatic.com.pk

Tel No

0092-21-32422537

Fax No

0092-21-3241554

2 Composition/information on ingredients

· Chemical characterization:

· CAS No. Description

110-19-0 isobutyl acetate

· Identification number(s)

· EINECS Number: 203-745-1

· Index number: 607-026-00-7

3 Hazards identification

· Hazard description:



F Highly flammable

· Information concerning particular hazards for human and environment:

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent. R 11 Highly flammable.

R 66 Repeated exposure may cause skin dryness or cracking.

4 First aid measures

- $\cdot \textit{After inhalation: } \textit{Supply fresh air; consult doctor in case of complaints.}$
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.

5 Fire-fighting measures

· Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · **Protective equipment:** No special measures required.

6 Accidental release measures

· Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

(Contd. on page 2)

Printing date 24.06.2009 Revision: 24.06.2009

Trade name: isobutyl acetate

(Contd. of page 1)

· Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· Measures for cleaning/collecting:

Dilute with plenty of water.

Ensure adequate ventilation.

7 Handling and storage

- · Handling:
- · Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

· Ingredients	with limit va	lues that re	eauire monita	oring at ti	he workplace:
Ing carems	Will think you	incs inai i c	quii e monne	or eng ar e	ic wormpiace.

110-19-0 isobutyl acetate

PEL(USA)	$700 mg/m^3$, 150 ppm
REL(USA)	700 mg/m³, 150 ppm
TLV(USA)	713 mg/m³, 150 ppm

WEL (Great Britain) Short-term value: 903 mg/m³, 187 ppm Long-term value: 724 mg/m³, 150 ppm

- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- · General protective and hygienic measures: Wash hands before breaks and at the end of work.
- · Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

(Contd. on page 3)

Printing date 24.06.2009 Revision: 24.06.2009

Trade name: isobutyl acetate

(Contd. of page 2)

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

	-
· General Information	
Form:	Fluid
Colour:	Colourless
Odour:	Fruit-like
· Change in condition	
Melting point/Melting range.	: -98.85°C
Boiling point/Boiling range:	117.2°C
· Flash point:	18°C
· Ignition temperature:	405°C
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	2.4 Vol %
Upper:	10.5 Vol %
· Vapour pressure at 20°C:	20 hPa
· Density at 20°C:	0.8747 g/cm^3
· Solubility in / Miscibility with	
water at 20°C:	7 g/l
· pH-value (4 g/l) at 20°C:	6
· Viscosity:	
Dynamic:	0.96 mPas

10 Stability and reactivity

- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Dangerous reactions No dangerous reactions known.
- · Dangerous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Acute toxicity:

· <i>LD/LC50</i>	values re	levant fo	or classi	fication:

Oral LD50 | 13400 mg/kg (rat)

(Contd. on page 4)

Printing date 24.06.2009 Revision: 24.06.2009

Trade name: isobutyl acetate

(Contd. of page 3)

- · Primary irritant effect:
- on the skin: No irritant effect.on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.

12 Ecological information

· General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- · Product:
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information

· Land transport ADR/RID (cross-border)



· ADR/RID class: 3 Flammable liquids.

Danger code (Kemler): 33
UN-Number: 1213
Packaging group: II
Hazard label: 3

• Description of goods: 1213 ISOBUTYL ACETATE

· Maritime transport IMDG:



· IMDG Class: 3
· UN Number: 1213
· Label 3
· Packaging group: II
· EMS Number: F-E,S-D
· Marine pollutant: No

(Contd. on page 5)

Printing date 24.06.2009 Revision: 24.06.2009

Trade name: isobutyl acetate

(Contd. of page 4)

· Proper shipping name: ISOBUTYL ACETATE

· Air transport ICAO-TI and IATA-DGR:



· ICAO/IATA Class: 3 · UN/ID Number: 1213 · Label 3 · Packaging group: II

· Proper shipping name: ISOBUTYL ACETATE

15 Regulatory information

· Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:



F Highly flammable

- · Risk phrases:
- 11 Highly flammable.
- 66 Repeated exposure may cause skin dryness or cracking.
- · Safety phrases:
- 2 Keep out of the reach of children.
- 16 Keep away from sources of ignition No smoking.
- 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
- 25 Avoid contact with eyes.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing MSDS: Product safety department
- · Contact: Mr. Menon

UAE ·