Material Safety Data Sh	NOLYCHEM		
MOLYSOL 'E' AR	VERSION: 04		
	<b>DATE OF ISSUE :</b> 01-08-2023 <b>SUPERSEDES :</b> 03		
Product Code : 24322	Page 1 of 10		
Identification of the substance/r	nixture and of the company/undertaking		
1 Product identifiers	instare and of the company/undertaxing		
Product name	: MOLYSOL 'E' AR		
Product code	: 24322		
Identification of the product	: MOLYSOL 'E' AR		
CAS No	: 64-17-5		
	• • • • • • • • •		
<b>1.2. Relevant identified uses of the</b> Identified uses	e substance or mixture and uses advised against		
.3. Details of the supplier of the s	: Laboratory chemicals, Manufacture of substances		
Company identification	: MOLYCHEM		
Company identification	Maker Tower 'E', 41-A2, 4th Floor, Above Maker Arcade,		
	Cuffe Parade, Mumbai 400 005 (INDIA)		
	Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.		
	Email : info@molychem.net		
	Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat		
	Textile Co.,Kulgaon, Badlapur (E), DistThane-421 503.		
.4. Emergency telephone number			
Emergency number	: +91 22 4066 8111 (10:00am - 6:00 pm)		
2. Hazards identification	• /		
2.1 Classification of the substance			
Classification according to Regula			
Flammable liquids (Category 2), H2	.25		
Eye irritation (Category 2), H319	s mentioned in this Section, see Section 16.		
2.2 Label elements	inentioned in this Section, see Section 10.		
Labelling according Regulation (E	2C) No 1272/2008		
Pictogram : Signal word			
<b>v v</b>			
Hazard statement(s)	flammable liquid and vapour.		
H225 : Highly f	serious eye irritation.		
H225 : Highly f H319 : Causes s	serious eye irritation.		
H225 : Highly f H319 : Causes s Precautionary statement(s)	serious eye irritation. vay from heat, hot surfaces, sparks, open flames and other		
H225 : Highly f H319 : Causes s Precautionary statement(s) P210 : Keep aw	-		
H319 : Causes s Precautionary statement(s) P210 : Keep aw ignition s	vay from heat, hot surfaces, sparks, open flames and other		

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Pom	ove contact lenses if present and easy to do Continue rinsing

Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 : If eye irritation persists: Get medical advice/ attention. P403 + P235 : Store in a well-ventilated place. Keep cool.

#### **Supplemental Hazard**

Statements : none

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 3. Composition/information on ingredients

**3.1** Substances Formula : C<sub>2</sub>H<sub>6</sub>O Molecular weight : 46.07 g/mol CAS-No. : 64-17-5 EC-No. : 200-578-6 Index-No. : 603-002-00-5

Component		Classification	Concentration
MOLYSOL 'E'		Flam. Liq. 2; Eye Irrit. 2;	< = 100%
CAS-No. 64-1	17-5	H225, H319	
EC-No. 200	-578-6	Concentration limits:	
Index-No. 603	-002-00-5	>= 50 %: Eye Irrit. 2A,	
		H319	

#### 4. First aid measures

#### 4.1 Description of first aid measures

**General advice** 

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses. **If swallowed** 

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician

#### 4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### 4.3. Indication of any immediate medical attention and special treatment needed

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No data available

#### 5. Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

#### 5.2. Special hazards arising from the substance or mixture

- Carbon oxides
- Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

#### 5.3. Advice for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

#### **5.4 Further information**

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### 6. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

#### **6.2 Environmental precautions**

Do not let product enter drains. Risk of explosion.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®).

Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

For disposal see section 13

#### 7. Handling and storage

#### 7.1 Precautions for safe handling

#### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### Hygiene measures

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Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities

#### **Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

#### **Storage class**

Storage class (TRGS 510): 3: Flammable liquids

#### 7.3 Specific end use(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

#### 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. **Full contact** 

Material: Nitrile-rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

#### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 120 min

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 industria situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### **Body Protection**

Flame retardant antistatic protective clothing.

#### **Respiratory protection**

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Recommende	d Filter type: Filte	r A (acc. to DIN 3181) for vapours of organic compounds The entrepeneur has
		ning and testing of respiratory protective devices are carried out according to
the instruction	ns of the producer	These measures have to be properly documented.
Control of ei	nvironmental exp	osure
Do not let pro	oduct enter drains.	Risk of explosion.
	nd chemical prop	
		ical and chemical properties
a) Physic		liquid
b) Color		Colourless
c) Odor		alcohol-like
d) Melti	0	Melting point/freezing point: -114,0 °C at 1.013,25 hPa.
-	freezing point	
	boiling point	78.29 °C at 1.013 hPa
	oiling range	
	nability (solid, gas	
g) Upper		Upper explosion limit: 27.7 %(V)
	nability or	Lower explosion limit: 3.1 %(V)
-	sive limits	
h) Flash	-	13 °C - closed cup
i) Autoig	gnition temperatur	e 363 - 425 °C at 1.013 hPa
j) Decon	nposition temperat	1 1
k) pH		7.0 at 10 g/l at 20 °C
l) Viscos	sity	Viscosity, kinematic: No data available
		Viscosity, dynamic: 1.2 mPa.s at 20 °C
m) Water	r solubility	1.000 g/l at 20 °C - completely miscible
n) Partit	ion coefficient:	
n-octa	nol/water	log Pow: -0.35 at 24 °C - Bioaccumulation is not expected
o) Vapor	pressure	57.26 hPa at 19.6 °C
p) Densi	ty	0.79 g/cm3 at 20 °C
Relati	ve density	No data available
q) Relati	ve vapor density	No data available
r) Partic	le characteristics	No data available
s) Explo	sive properties	No data available
t) Oxidiz	zing properties	none
9.2. Other in	nformation	
Conduct	ivity	$< 1 \ \mu\text{S/cm}$
Surface	tension	22.31 mN/m at 20 °C
		similar to water.
Relative	vapor density	1.6

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10. Stability and reactivity
10.1 Reactivity
Vapors may form explosive mixture with air.
10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
Warming.
10.5 Incompatible materials
No data available
10.6 Hazardous decomposition products
No data available
11. Toxicological information
11.1 Information on toxicological effects
Acute toxicity
LD50 Oral - Rat – 10.470 mg/kg
LC50 Inhalation - Rat - male and female - 4 h - 124,7 mg/l – vapor
LD50 Dermal - No data available
Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 24 h
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: Moderate eye irritation
(OECD Test Guideline 405)
Respiratory or skin sensitisation
Maximization Test - Guinea pig
Result: negative (OECD Test Guideline 406)
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: Methanol
Germ cell mutagenicity
Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471 Result: negative
Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
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Method: OECD Test Guideline 476 **Result:** negative Test Type: dominant lethal test Species: Mouse **Application Route: Oral** Method: OECD Test Guideline 478 Result: Positive results were obtained in some in vivo tests. Carcinogenicity No data available **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 Endocrine disrupting properties** 

#### **Product**:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male - Oral - NOAEL (No observed adverse effect level) - 1.730 mg/kg -

LOAEL (Lowest observed adverse effect level) - 3.200 mg/kg

irritant effects, respiratory paralysis, Dizziness, narcosis, inebriation, euphoria, Nausea, Vomiting To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### **<u>12. Ecological information</u>**

#### 12.1 Toxicity

Toxicity to fish LC50 - flow-through test LC50 - Pimephales promelas (fathead minnow) –15.300 mg/l - 96 h (US-EPA) ...Toxicity to daphniastatic test LC50 - Ceriodaphnia dubia (water flea) - 5.012 mg/l - 48 hand other aquatic invertebratesstatic test LC50 - Ceriodaphnia dubia (water flea) - 5.012 mg/l - 48 hRemarks: (ECHA)EC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 hToxicity to algaeEC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 hToxicity to bacteria static testIC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)**12.2 Persistence and degradability**<br/>Biodegradability a<br/>erobic - Exposure time 15 d<br/>Result: ca.95 % - Readily biodegradable. (OECD Test Guideline 301E)MOLYCHEM H.Q. : Maker Tower 'E', 41-A2, 4th Floor, Above Maker Arcade, Cuffe Parade, Mumbai 400 005 (INDIA)<br/>Tel. : +91 22 4066 8111• Email: info@molychem.net • Web: www.molychem.net

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	670 mg/g Remarks: (Lit.)	
Demand (BOD)	2100 mg/g Domorks (Lit)	
Theoretical oxygen demand <b>12.3 Bioaccumulative potential</b>	2.100 mg/g Remarks: (Lit.)	
-	t n-octanol/water, accumulation in o	rannisms is not avaated
12.4 Mobility in soil	in-octanon water, accumulation in o	rgamsms is not expected.
No data available		
12.5 Results of PBT and vPvB assess	ment	
	no components considered to be eith	er persistent bioaccumulative and
	d very bioaccumulative (vPvB) at le	
12.6 Other adverse effects		
No data available		
13. Disposal considerations		
<b>13.1 Waste treatment methods</b>		
Waste from residues/unused products	Should not be released into the	-
		ns. Dispose of waste in accordance
Contaminated packaging	with environmental legislation.	
Contaminated packaging	Empty containers pose a potentia Do not cut, punctureof weldcor	
	Do not cut, punctureor weldcor	namers.
14. Transport information		
14.1. UN number		
ADR/RID: - 1170	IMDG: - 1170	IATA: - 1170
14.2. UN proper shipping name		
ADR/RID: Molysol E		
IMDG: Molysol E		
IATA: Molysol E		
14.3. Transport hazard class(es)		
ADR/RID: - 3	IMDG: - 3	IATA: -3
14.4 Packaging group		
ADR/RID: - II	IMDG: - II	IATA: -II
14.5 Environmental hazards		
ADR/RID: no	IMDG Marine pollutant: no	IATA: no
14.6 Special precautions for user		
	D/E)	
Further information : 1	No data available	
15. Regulatory information		
15.1. Safety, health and environmen		
	omplies with the requirements of Re	
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#### 15.2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

#### 16. Other information

#### Abbreviations and acronyms :

PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

**Sources of key data used** : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

#### Further information : None.

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product is used as a component in another product, this MSDS information may not be applicable.

#### End of document

#### Prepared by: MOLYCHEM (INDIA)

#### For questions contact: MOLYCHEM

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