

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT CODE	A0001
PRODUCT NAME	ACETOIN
SUPPLIER	Shanghai M & U International Trade Co., Ltd. Rm 1717, No 598 North NuJiang Road 200333 Shanghai, China +86-21-32515501 32515502 sales@mu-intel.com

FOR EMERGENCIES CALL CHEMTREC: 800-424-9300 (24-HOURS)

2. HAZARD IDENTIFICATION:

Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

R10: Flammable

Information concerning particular hazards for human and environment

Not applicable

Label elements

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS)

Hazard pictograms



GHS02

Signal word

Warning

Hazard statements

Flammable liquid and vapor

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Use explosion-proof electrical/ventilating/lighting/equipment

Wear protective gloves/eye protection/face protection

Ground/bond container and receiving equipment

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Dispose of contents/container in accordance with local/regional/national/international regulations

Classification system

NFPA ratings (scale 0 - 4)



Health = 0

Fire = 2

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 0

Fire = 2

Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT

Not applicable

vPvB

Not applicable

3. COMPOSITION AND INFORMATION ON INGREDIENTS:

Chemical characterization

Substances

CAS No	Description
513-86-0	acetoin liquid

Identification number(s)

EC number

208-174-1

4. FIRST-AID GUIDE:

Description of first aid measures

After inhalation

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

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available

Indication of any immediate medical attention and special treatment needed

No further relevant information available

5. FIRE-FIGHTING GUIDE:

Extinguishing media

Suitable extinguishing agents

CO₂ or extinguishing powder. Fight larger fires with alcohol resistant foam

For safety reasons unsuitable extinguishing agents

Water with full jet

Special hazards arising from the substance or mixture

No further relevant information available

Advice for firefighters

Protective equipment

No special measures required

Additional information

Cool endangered receptacles with water spray

Collect contaminated firefighting water separately. It must not enter the sewage system

6. ACCIDENTAL RELEASE GUIDE:

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away

Environmental precautions

Do not allow to enter sewers/surface or ground water

Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust)

Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment

See Section 13 for disposal information

7. HANDLING AND STORAGE:**Handling****Precautions for safe handling**

No special precautions are necessary if used correctly

Information about protection against explosions and fires

Keep ignition sources away - Do not smoke

Protect against electrostatic charges

Conditions for safe storage, including any incompatibilities**Storage****Requirements to be met by storerooms and receptacles**

No special requirements

Information about storage in one common storage facility

Not required

Further information about storage conditions

Keep receptacle tightly sealed

Specific end use(s)

No further relevant information available

8. EXPOSURE AND PERSONAL PROTECTION:**Additional information about design of technical systems**

No further data; see item 7

Control parameters**Components with limit values that require monitoring at the workplace**

Not required

Additional information

The lists that were valid during the creation were used as a basis

Exposure controls**Personal protective equipment**

General protective and hygienic measures

Wash hands before breaks and at the end of work

Breathing equipment

Not required

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 should be based 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

Penetration time of glove material

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

Eye protection



Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES:

Information on basic physical and chemical properties

General Information

Appearance	
Form	Slurry, solid (may solidify at low temperatures, can be reconstituted by melting for several hours at <60 °C)
Color	White to yellow
Odor	Dairy, butter, milk, yogurt
Odor threshold	Not determined
pH-value	Not determined
Change in condition	
Melting point/Melting range	Undetermined
Boiling point/Boiling range	148 °C (298 °F)
Flash point	45 °C (113 °F)
Flammability (solid, gaseous)	Not applicable
Ignition temperature	
Decomposition temperature	Not determined
Auto igniting	Not determined

Danger of explosion	Product is not explosive. However, formation of explosive air/vapor mixtures are possible
Explosion limits	
Lower	Not determined
Upper	Not determined
Vapor pressure	Not determined
Density	Not determined
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with	
Water	Not miscible or difficult to mix
Partition coefficient (n-octanol/water)	Not determined
Viscosity	
Dynamic	Not determined
Kinematic	Not determined
Organic solvents	0.0 %
Other information	No further relevant information available

10. STABILITY AND REACTIVITY:

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications

Possibility of hazardous reactions

No dangerous reactions known

Conditions to avoid

No further relevant information available

Incompatible materials

No further relevant information available

Hazardous decomposition products

No dangerous decomposition products known

11. TOXICOLOGICAL INFORMATION:

Information on toxicological effects

Acute toxicity

LD/LC50 values that are relevant for classification		
513-86-0 acetoin liquid		
Oral	LD50	>50000 mg/kg (rat)
Dermal	LD50	>50000 mg/kg (rabbit)

Primary irritant effect

On the skin

No irritant effect

On the eye

No irritating effect

Sensitization

No sensitizing effects known

Additional toxicological information

Carcinogenic categories

IARC (International Agency for Research on Cancer)
Substance is not listed
NTP (National Toxicology Program)
Substance is not listed
OSHA-Ca (Occupational Safety & Health Administration)
Substance is not listed

12. ECOLOGICAL INFORMATION:

Toxicity

Aquatic toxicity

No further relevant information available

Persistence and degradability

No further relevant information available

Behavior in environmental systems

Bioaccumulative potential

No further relevant information available

Mobility in soil

No further relevant information available

Additional ecological information

General notes

Water hazard class 1 (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

Results of PBT and vPvB assessment

PBT

Not applicable

vPvB

Not applicable

Other adverse effects

No further relevant information available

13. DISPOSAL RECOMMENDATIONS:

Waste treatment methods

Recommendation




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

Un cleaned packaging

Recommendation

Disposal must be made according to official regulations

14. TRANSPORTATION INFORMATION:

UN-Number	
DOT, ADR, IMDG, IATA	UN2621
UN proper shipping name	
DOT	Acetyl methyl carbinol
ADR	2621 Acetyl methyl carbinol
MDG, IATA	ACETYL METHYL CARBINOL
Transport hazard class (es)	
DOT	
	
Class	3 Flammable liquids
Label	3
ADR	
	
Class	3 (F1) Flammable liquids
Label	3
MDG, IATA	
	
Class	3 Flammable liquids
Label	3
Packing group	
DOT, ADR, IMDG, IATA	III

Environmental hazards	
Marine pollutant	No
Special precautions for user	Warning: Flammable liquids
Danger code (Kemler)	30
EMS Number	F-A,S-G
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
ADR	
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation"	UN2621, Acetyl methyl carbinol, 3, III

15. REGULATORY INFORMATION:

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara Section 355 (extremely hazardous substances)

Substance is not listed

Sara Section 313 (Specific toxic chemical listings)

Substance is not listed

TSCA (Toxic Substances Control Act)

Substance is listed

Proposition 65

Chemicals known to cause cancer

Substance is not listed.

Chemicals known to cause reproductive toxicity for females

Substance is not listed

Chemicals known to cause reproductive toxicity for males

Substance is not listed

Chemicals known to cause developmental toxicity

Substance is not listed

Carcinogenic categories

EPA (Environmental Protection Agency)

Substance is not listed

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed

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Chemical safety assessment

A Chemical Safety Assessment has not been carried out

16. OTHER INFORMATION:

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Prepared By: M&U International LLC

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