Multichem Specialities Pvt. Ltd.
1215, Dalamal Tower,
Nariman Point, Mumbai 400021, India
T: +91 2243432121
E: multichem@multichemindia.com
www.multichemindia.com

SAFETY DATA SHEET

METHYL ACETOACETATE

SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

1.1 Product identifier:	
CAS Number:	105-45-3
EC number:	203-299-8
1.2 SYNONYMS	• Methyl 3-oxobutanoate • Methyl acetoacetate ester • Methyl acetylacetate • Methyl 2-oxopropionate • Methyl acetoacetate (ester) • 2-Methyl-3-oxobutanoate

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation. Eye irritation (Category 2)
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	**H319:** Causes serious eye irritation.
Precautionary Statements:	**P264**: Wash hands thoroughly after handling. **P280:** Wear protective gloves/eye protection/face protection. **P305 + P351 + P338:** IF IN EYES: Rinse cautiously with water for several minutes.
2.3 Other hazards:	
Inhalation:	May cause irritation to the respiratory tract, leading to coughing throat irritation, nausea and vomiting

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Ingestion:	can lead to symptoms such as nausea, vomiting, abdominal pain, and diarrhea.
Skin Contact:	repeated skin contact can cause irritation, leading to symptoms such as redness, itching, and dryness.
Eye contact:	Can cause severe irritation, redness, pain and burning sensation.
Chronic Exposure:	chronic exposure may lead to long-term health effects, including skin irritation, respiratory issues, and potential liver or kidney damage.
Aggravation of pre-existing conditions	Individuals with asthma, chronic bronchitis, or other pulmonary disorders may experience worsened symptoms, such as increased wheezing, coughing, or shortness of breath when exposed

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 105-45-3 METHYL ACETOACETATE
Identification number(s):	EC number: 203-299-8

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
After skin contact:	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

After eye contact:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately
After swallowing:	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid
4.2 Most important symptoms and effects, both acute and delayed	Acute exposure can cause respiratory irritation, headaches, nausea, and skin or eye irritation, while chronic or repeated exposure may lead to respiratory problems, skin dermatitis, and potential liver or kidney damage.
4.3 Indication of any immediate medical attention and special treatment needed	Immediate medical attention is needed when exposed.

SECTION 5: Firefighting measures

5.1 Extinguishing media	Use water spray, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture	Moderate fire hazard. Combustible liquid and vapor. Containers may explode when heated. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Vapor/air mixtures are explosive above flash point. Carbon monoxide, carbon dioxide
5.3 Advice for firefighters	Wear fully protective suit, safety glasses and respiratory device .
5.4 further information	No data available

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations.
6.2 Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
6.3 Methods and material for containment and cleaning up:	Use non-combustible absorbents like sand, vermiculite, or diatomaceous earth to absorb small quantities, then dispose of the absorbent in an approved waste container. according to local regulations

SECTION 7: Handling and storage

7.1 Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking.
7.2 Conditions for safe storage, including any incompatibilities	Dedicated tank and keep cool ventilate far way from fire heat and sunlight. keep temp below 40C with several extinguish facilities. Do not keep it with oxidant or acidity substance or relevant hazards
Requirements to be met by storerooms and receptacles:	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.
7.3 Specific end uses	No data available

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended. Use explosion-proof ventilation equipment
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:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	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
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.
Other protection:	Smoking is forbidden in workplaces. Attention should be paid to personal hygiene

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties General Information	
Appearance: Form:	liquid

Colour:	colourless
Odour:	Pleasant odour
pH-value:	No data available
Melting point/Melting range:	-50°C
Boiling point/Boiling range:	162°C
Flammability (solid, gaseous):	non-flammable
Ignition temperature:	280°C (approx.)
Decomposition temperature:	220°C (approx.)
Self-igniting:	Not determined
Flash point:	67°C
Danger of explosion:	Not determined
Explosion limits: Lower:	3.1%
Explosion limits: Upper:	16%
Vapour pressure:	1.7 mmHg. At 20°C
Density at 20 °C:	1.030 g/cm³
Relative density:	1.03
Vapour density:	3.5
Evaporation rate:	Not determined
Solubility in / Miscibility with-·water at 20 °C:	Limited solubilty
Partition coefficient:(n-octanol/water)	1.23
Viscosity:	0.47 cP

SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	Stable under normal temperatures and pressures.
10.3 Possibility of hazardous reactions	can undergo hazardous reactions when exposed to strong acids, bases, or oxidizing agents potentially leading to exothermic reactions, hydrolysis, or the release of toxic fumes.
10.4 Conditions to avoid	Incompatible materials, ignition sources, excess heat. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.
10.5 Incompatible materials:	Oxidizing agents, bases.

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10.6 Hazardous decomposition products	No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	**LD50/LC50:** Draize test, rabbit, eye: 2 mg Severe; Draize test, rabbit, skin: 500 mg/24H Mild; Oral, rat: **LD50** = 3228 mg/kg INVERTEBRATE: 48 Hr **EC50** Daphnia magna: 400 mg/L
Germ cell mutagenicity:	no data available
Carcinogenicity:	Not listed by ACGIH, IARC, NTP, or CA Prop 65.
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
Signs and Symptoms of Exposure:	Always have on hand on first-aid kit, together with proper instructions
11.2 Additional toxicological information	
Aquatic Toxicity:	It can still pose high risks to aquatic organisms in relatively low concentrations or with prolonged exposure
Biodegradability:	moderately biodegradable

SECTION 12: Ecological information

12.1 Toxicity **Aquatic toxicity:**	It can still pose high risks to aquatic organisms in relatively low concentrations or with prolonged exposure.

12.2 Persistence and degradability:	Moderate persistence and biodegradable
12.3 Bioaccumulative potential:	Low bioaccumulative potential
12.4 Mobility in soil:	Moderately mobility
12.5 Other adverse effects	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging: **Recommendation:**	Should be thoroughly cleaned, neutralized if necessary and disposed of or recycled according to local environmental and safety regulations to prevent contamination.
Recommended cleansing agents:	Water, sand, vermiculite, diatomaceous earth, acetone, isopropyl alcohol, baking soda

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	No data available
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	No data available
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	No data available
14.4 Packing group · ADR, IMDG, IATA:	No data available
14.5 Environmental hazards:	No data available
14.6 Special precautions for user	No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture **Directive 2012/18/EU**	Directive 2012/18/EU, under that this substance is not classified under harmful substances
Named dangerous substances	ANNEX I Substance is not listed
15.2 Chemical safety assessment:	Chemical assessment has been carried out under REACH

	regulation to check for potential hazard over 1 tonne per year.

SECTION 16: Other information

The supplier makes no warranty of any kind, expressed or implied, concerning the use of this product either singly or in combination with other substances. User assumes all risks incident to its use.All information above represents the best information currently available to us. However, neither Nantong acetic acid chemical Co.Ltd nor any of its subsidiaries or affiliates assume any responsibility whatsoever for the accuracy or completeness of the information contained herein.