

ACR37712

## Methyl vinyl ketone, stabilized

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>产品说明:</b> <b>Product Description:</b>	<b>丁烯酮</b> <b>Methyl vinyl ketone, stabilized</b>
<b>Cat No. :</b>	<b>377120000</b>
<b>Synonyms</b>	3-Buten-2-one; MVK
<b>CAS No</b>	78-94-4
<b>Molecular Formula</b>	C <sub>4</sub> H <sub>6</sub> O
<b>Supplier</b>	<b>UK entity/business name</b> Fisher Scientific UK Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom  <b>EU entity/business name</b> Thermo Fisher Scientific Janssen Pharmaceuticaaan 3a, 2440 Geel, Belgium
<b>Emergency Telephone Number</b>	For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11 Emergency Number <b>US</b> :001-201-796-7100 / <b>Europe</b> : +32 14 57 52 99 <b>CHEMTREC</b> Tel. No. <b>US</b> :001-800-424-9300 / <b>Europe</b> :001-703-527-3887
<b>E-mail address</b>	begel.sdsdesk@thermofisher.com
<b>Recommended Use</b> <b>Uses advised against</b>	Laboratory chemicals. No Information available

### SECTION 2. HAZARD IDENTIFICATION

<b>Physical State</b> Liquid	<b>Appearance</b> Light yellow	<b>Odor</b> Irritating pungent
<b>Emergency Overview</b> Highly flammable liquid and vapor. Fatal in contact with skin. Fatal if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes damage to organs. May cause drowsiness and dizziness. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life. Very toxic to aquatic life with long lasting effects. Fatal if swallowed. Sensitivity to light.		

#### Classification of the substance or mixture

Flammable liquids.	Category 2
Acute Oral Toxicity	Category 2
Acute Dermal Toxicity	Category 1
Acute Inhalation Toxicity - Vapors	Category 1
Skin Corrosion/Irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1
Specific target organ toxicity - (single exposure)	Category 1 Category 3
Specific target organ toxicity - (repeated exposure)	Category 1
Acute aquatic toxicity	Category 1 Category 3
Chronic aquatic toxicity	Category 1

**Label Elements****Signal Word****Danger****Hazard Statements**

H225 - Highly flammable liquid and vapor  
H314 - Causes severe skin burns and eye damage  
H317 - May cause an allergic skin reaction  
H370 - Causes damage to organs  
H336 - May cause drowsiness or dizziness  
H372 - Causes damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects  
H300 + H310 + H330 - Fatal if swallowed, in contact with skin or if inhaled

**Precautionary Statements****Prevention**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P240 - Ground and bond container and receiving equipment  
P241 - Use explosion-proof electrical/ ventilating/ lighting equipment  
P242 - Use non-sparking tools  
P243 - Take action to prevent static discharges  
P262 - Do not get in eyes, on skin, or on clothing  
P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P284 - Wear respiratory protection

**Response**

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor  
P330 - Rinse mouth  
P331 - Do NOT induce vomiting  
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish  
P362 + P364 - Take off contaminated clothing and wash it before reuse

**Storage**

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
P405 - Store locked up

**Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**Physical and Chemical Hazards**

Highly flammable. Vapors may cause flash fire or explosion.

**Health Hazards**

Fatal in contact with skin. Fatal if inhaled. Corrosive. Causes skin and eye burns. May cause an allergic skin reaction. Causes serious eye damage. Causes damage to organs. May cause drowsiness or dizziness. Causes damage to organs through prolonged or repeated exposure. Very toxic if swallowed.

**Environmental hazards**

Harmful to aquatic life. Very toxic to aquatic life with long lasting effects. Will likely be mobile in the environment due to its volatility. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

**Other Hazards**

This product does not contain any known or suspected endocrine disruptors.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No	Weight %
Methyl vinyl ketone	78-94-4	95
Acetic acid	64-19-7	0.4-1
Acetonitrile	75-05-8	< 0.7
Hydroquinone	123-31-9	0.3-0.5
Water	7732-18-5	3

**SECTION 4. FIRST AID MEASURES****General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation**

If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required.

**Ingestion**

Do NOT induce vomiting. Call a physician or poison control center immediately.

**Most important symptoms and effects**

Causes burns by all exposure routes. May cause allergic skin reaction. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Self-Protection of the First Aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**Notes to Physician**

Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Water mist may be used to cool closed containers. CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to

source of ignition and flash back. Do not allow run-off from fire-fighting to enter drains or water courses.

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges.

### Environmental Precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

### Methods for Containment and Clean Up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7. HANDLING AND STORAGE

### Handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

### Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Keep away from heat, sparks and flame. To maintain product quality: Keep refrigerated. Keep at temperatures below 10°C.

### Specific Use(s)

Use in laboratories

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Component	China	Taiwan	Thailand	Hong Kong
Acetic acid	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>
Acetonitrile	TWA: 30 mg/m <sup>3</sup> Skin	TWA: 40 ppm TWA: 67 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 40 ppm	TWA: 40 ppm TWA: 67 mg/m <sup>3</sup> STEL: 60 ppm STEL: 101 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup>
Hydroquinone	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>

Component	ACGIH TLV	OSHA PEL	NIOSH	The United Kingdom	European Union
Methyl vinyl ketone	Ceiling: 0.01 ppm			-	
Acetic acid	TWA: 10 ppm STEL: 15 ppm	(Vacated) TWA: 10 ppm (Vacated) TWA: 25	IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	STEL: 37 mg/m <sup>3</sup> STEL: 15 ppm TWA: 10 ppm	TWA: 25 mg/m <sup>3</sup> (8h) TWA: 10 ppm (8h) STEL: 50 mg/m <sup>3</sup>

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		mg/m <sup>3</sup> TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>	TWA: 25 mg/m <sup>3</sup>	(15min) STEL: 20 ppm (15min)
Acetonitrile	TWA: 20 ppm Skin	(Vacated) TWA: 40 ppm (Vacated) TWA: 70 mg/m <sup>3</sup> (Vacated) TWA: 5 mg/m <sup>3</sup> (Vacated) STEL: 60 ppm (Vacated) STEL: 105 mg/m <sup>3</sup> TWA: 40 ppm TWA: 70 mg/m <sup>3</sup>	IDLH: 137 ppm IDLH: 25 mg/m <sup>3</sup> TWA: 20 ppm TWA: 34 mg/m <sup>3</sup>	STEL: 60 ppm 15 min STEL: 102 mg/m <sup>3</sup> 15 min TWA: 40 ppm 8 hr TWA: 68 mg/m <sup>3</sup> 8 hr	TWA: 40 ppm (8hr) TWA: 70 mg/m <sup>3</sup> (8hr) Skin
Hydroquinone	TWA: 1 mg/m <sup>3</sup>	(Vacated) TWA: 2 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>	IDLH: 50 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>	STEL: 1.5 mg/m <sup>3</sup> 15 min TWA: 0.5 mg/m <sup>3</sup> 8 hr	

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS70 General methods for sampling airborne gases and vapours MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

**Exposure Controls****Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

**Personal protective equipment**

**Eye Protection** Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	See manufacturers	-	EN 374	(minimum requirement)
Neoprene	recommendations			
Natural rubber				
PVC				

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection** Long sleeved clothing

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
**Recommended Filter type:** Organic gases and vapours filter Type A Brown conforming to EN14387

**Small scale/Laboratory use** Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  
**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141  
 When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Light yellow	
<b>Physical State</b>	Liquid	
<b>Odor</b>	Irritating pungent	
<b>Odor Threshold</b>	0.2 ppm	
<b>pH</b>	Not applicable	
<b>Melting Point/Range</b>	No data available	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	80 °C / 176 °F	@ 760 mmHg
<b>Flash Point</b>	-7 °C / 19.4 °F	<b>Method -</b> No information available
<b>Evaporation Rate</b>	No data available	
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	<b>Lower</b> 2.1 vol% <b>Upper</b> 15.6 vol%	
<b>Vapor Pressure</b>	130 mbar @ 28 °C	
<b>Vapor Density</b>	2.4	(Air = 1.0)
<b>Specific Gravity / Density</b>	0.864 g/cm3 @20°C	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Water Solubility</b>	Miscible	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Acetic acid	-0.2	
Acetonitrile	-0.34	
Hydroquinone	0.59	
<b>Autoignition Temperature</b>	370 °C / 698 °F	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	Dynamic 0.81 mPa.s (70 °C)	
<b>Explosive Properties</b>		Vapors may form explosive mixtures with air
<b>Oxidizing Properties</b>	No information available	
<b>Molecular Formula</b>	C4 H6 O	
<b>Molecular Weight</b>	70.09	
<b>Surface tension</b>	24 mN/m	

## SECTION 10. STABILITY AND REACTIVITY

**Stability** Light sensitive. heat sensitive.

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<b>Hazardous Reactions</b>	None under normal processing.
<b>Hazardous Polymerization</b>	Polymerization can occur.
<b>Conditions to Avoid</b>	Excess heat. Exposure to light. Keep away from open flames, hot surfaces and sources of ignition. Incompatible products.
<b>Materials to avoid</b>	Oxidizing agent. Reducing Agent. oxygen. Bases. Amines. Ammonia.
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 11. TOXICOLOGICAL INFORMATION

## Product Information

(a) acute toxicity;  
Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl vinyl ketone	LD50 = 23.1 mg/kg ( Rat )	LD50 = 35 mg/kg ( Rat )	LC50 = 7 mg/m <sup>3</sup> ( Rat ) 4 h
Acetic acid	3310 mg/kg ( Rat )	-	> 40 mg/L ( Rat ) 4 h
Acetonitrile	450-787 mg/kg (Rat) 2460 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	LC50 = 3587 ppm (6.022 mg/l) (Mouse) 4h LC50 = 16,000 ppm (26.8 mg/l) (Rat) 4h
Hydroquinone	LD50 = 298 mg/kg ( Rat )	LD50 = 74800 mg/kg ( Rabbit )	
Water	-	-	-

(b) skin corrosion/irritation; Category 1 B

(c) serious eye damage/irritation; Category 1

## (d) respiratory or skin sensitization;

Respiratory  
SkinBased on available data, the classification criteria are not met  
Category 1

May cause sensitization by skin contact

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met  
The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	EU	UK	Germany	IARC
Hydroquinone			Cat. 2	

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Category 2

Target Organs

Kidney, Central nervous system (CNS), Lungs.

(j) aspiration hazard; Based on available data, the classification criteria are not met

**Symptoms / effects, both acute and delayed** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects** The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Acetic acid	Pimephales promelas: LC50 = 88 mg/L/96h Lepomis macrochirus: LC50 = 75 mg/L/96h	EC50 = 95 mg/L/24h	-	Photobacterium phosphoreum: EC50 = 8.8 mg/L/15 min Photobacterium phosphoreum: EC50 = 8.8 mg/L/25 min Photobacterium phosphoreum: EC50 = 8.8 mg/L/5 min
Acetonitrile	LC50: = 1850 mg/L, 96h static (Lepomis macrochirus) LC50: = 1000 mg/L, 96h static (Pimephales promelas) LC50: 1600 - 1690 mg/L, 96h flow-through (Pimephales promelas) LC50: = 1650 mg/L, 96h static (Poecilia reticulata)			EC50 = 28000 mg/L 48 h EC50 = 73 mg/L 24 h EC50 = 7500 mg/L 15 h
Hydroquinone	LC50: 0.1 - 0.18 mg/L, 96h static (Pimephales promelas) LC50: = 0.17 mg/L, 96h (Brachydanio rerio) LC50: = 0.044 mg/L, 96h flow-through (Pimephales promelas) LC50: = 0.044 mg/L, 96h flow-through (Oncorhynchus mykiss)	EC50: = 0.29 mg/L, 48h (Daphnia magna)	EC50: = 0.335 mg/L, 72h (Pseudokirchneriella subcapitata)	EC50 = 0.038 mg/L 15 min EC50 = 0.0382 mg/L 30 min EC50 = 0.042 mg/L 5 min EC50 = 23.75 mg/L 60 min

**Persistence and Degradability**  
**Persistence** Not readily biodegradable  
**Degradation in sewage treatment plant** Persistence is unlikely, based on information available.  
 Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**Bioaccumulative Potential** Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Acetic acid	-0.2	No data available
Acetonitrile	-0.34	No data available
Hydroquinone	0.59	40 dimensionless



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<b>Mobility in soil</b>	The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air.
<b>Surface tension</b>	24 mN/m
<b>Endocrine Disruptor Information</b>	This product does not contain any known or suspected endocrine disruptors.
<b>Persistent Organic Pollutant</b>	This product does not contain any known or suspected substance.
<b>Ozone Depletion Potential</b>	This product does not contain any known or suspected substance.

**SECTION 13. DISPOSAL CONSIDERATIONS**

<b>Waste from Residues/Unused Products</b>	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
<b>Contaminated Packaging</b>	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.
<b>Other Information</b>	Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Do not let this chemical enter the environment.

**SECTION 14. TRANSPORT INFORMATION****Road and Rail Transport**

<b>UN-No</b>	UN1251
<b>Proper Shipping Name</b>	METHYL VINYL KETONE, STABILIZED
<b>Hazard Class</b>	6.1
<b>Subsidiary Hazard Class</b>	3, 8
<b>Packing Group</b>	I

**IMDG/IMO**

<b>UN-No</b>	UN1251
<b>Proper Shipping Name</b>	METHYL VINYL KETONE, STABILIZED
<b>Hazard Class</b>	6.1
<b>Subsidiary Hazard Class</b>	3, 8
<b>Packing Group</b>	I

**IATA**

FORBIDDEN FOR IATA TRANSPORT

<b>UN-No</b>	UN1251
<b>Proper Shipping Name</b>	METHYL VINYL KETONE, STABILIZED FORBIDDEN FOR IATA TRANSPORT
<b>Hazard Class</b>	6.1
<b>Subsidiary Hazard Class</b>	3, 8
<b>Packing Group</b>	I

<b>Special Precautions for User</b>	Storage conditions in Section 7 should also be met during transportation. Cooled transportation <10°C is recommended to ensure shelf-life. Inhibitors have been added to stabilize this product. Inhibitor levels should be maintained. Hazardous polymerization may occur upon depletion of inhibitor.
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**SECTION 15. REGULATORY INFORMATION****International Inventories**

China, X = listed, Australia, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC),

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Japan (ENCS), Philippines (PICCS), Taiwan (TCSI), Japan (ISHL), New Zealand (NZIoC), Japan (ISHL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)	List of dangerous goods GB 12268 - 2012	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
Methyl vinyl ketone	X	X	X	X	201-160-6	X	-	X	X	X	X	KE-04112
Acetic acid	X	X	X	X	200-580-7	X	X	X	X	X	X	X
Acetonitrile	X	X	X	X	200-835-2	X	X	X	X	X	X	KE-00067
Hydroquinone	X	-	X	X	204-617-8	X	X	X	X	X	X	KE-35112
Water	-	-	X	X	231-791-2	X	X	X	X		X	KE-35400

**National Regulations**

Component	Toxic Chemical Substances Control Act
Acetonitrile 75-05-8 ( < 0.7 )	Class IV (1 wt%)

**SECTION 16. OTHER INFORMATION**

**Creation Date** 07-Oct-2010  
**Revision Date** 17-May-2024  
**Revision Summary** SDS sections updated, 2, 11.

**Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

**Legend**

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**PNEC** - Predicted No Effect Concentration

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

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**Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Physical hazards**

On basis of test data

**Health Hazards**

Calculation method

**Environmental hazards**

Calculation method

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**