Methyl Isobutyl Ketone

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 5/16/2016 Revision date: 2/16/2023 Supersedes: 1/14/2020 Version: 1.2

SECTION 1: Identification

1.1. Identification

Product form	:	Substance
Substance name	:	Methyl Isobutyl Ketone
CAS-No.	:	108-10-1
Formula	:	C6H12O
Synonyms	:	2-methyl-4-pentanone, 2-methylproyl methyl ketone, 2-pentanoe, hexone, isobutyl methyl ketone, MIBK
BIG No	:	10123

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Solvent Catalyst production, Industrial use, Intermediate, Paint and Coatings, Pharmaceutical, Process/Extraction Solvent, Process material, Raw material for chemical processes, Raw material for industry, Solvent, Industrial Use Chemical intermediate Odorant
Recommended use	:	Industrial use
Restrictions on use	:	None known

1.3. Supplier

Atlanta Branch Office	Ocoee Branch Office	Spartanburg Branch Office
The Whitaker Company	**The Whitaker Company**	**The Whitaker Company**
1557 Marietta Road NW	280 Enterprise Street	405 John Dodd Road
Atlanta, GA 30318	Ocoee, FL 34761	Spartanburg, SC 29303
404-355-8220 (t)	407-656.0088 (t)	864-578-6968 (t)
404-355-2436 (f)	407-877-8335 (f)	864-578-6864 (f)

1.4. Emergency telephone number

Emergency number	:	**CHEMTREC** 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 2	H225
Acute toxicity (inhalation) Category 4	H332
Eye irritation Category 2A	H319
Carcinogenicity Category 2	H351
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation)	H335

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical, lighting, ventilating equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P264 - Wash Skin thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a POISON CENTER or doctor/physician. if you feel unwell.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P370+P378 - In case of fire: Use alcohol resistant foam, water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	Conc.	GHS US classification
Methyl Isobutyl Ketone	CAS-No.: 108-10-1	100	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.

First-aid measures after skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Slight irritation. ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : Risk of aspiration pneumonia. Gastrointestinal complaints. AFTER INGESTION OF HIGH QUANTITIES: Central nervous system depression. Symptoms similar to those listed under inhalation.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Feeling of weakness. Red skin. Skin rash/inflammation. Dry/sore throat. Gastrointestinal complaints. Loss of appetite. Headache. Dizziness. Lung tissue affection/degeneration.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Solid water jet ineffective as extinguishing medium. Do NOT use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor. Flash back possible over considerable distance. Use water spray to disperse the vapors. NFPA Class 1B flammable liquid.

Explosion hazard	:	DIRECT EXPLOSION HAZARD: Gas/vapor explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD: may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".
Hazardous decomposition products in case of fire	:	Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	:	Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	:	Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: self-contained breathing apparatus. See "Material-Handling" to select protective clothing.
Emergency procedures	:	Evacuate personnel to safe areas. Remove all sources of ignition. Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Contain released product, collect/pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.
Methods for cleaning up	:	Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	**Ensure all equipment is electrically grounded before beginning transfer operations.** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. (strong) acids. (strong) bases. halogens.
Storage area : Store in a cool area. Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing. Aboveground. May be stored under nitrogen. Meet the legal requirements.
Special rules on packaging : SPECIAL REQUIREMENTS: hermetical. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials : SUITABLE MATERIAL: steel. stainless steel. carbon steel. aluminium. iron. glass. MATERIAL TO AVOID: copper. synthetic material.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methyl Isobutyl Ketone (108-10-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	20 ppm (Methyl isobutyl ketone; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH OEL STEL [ppm]	75 ppm (Methyl isobutyl ketone; USA; Short time value; TLV - Adopted Value)

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Air contaminant levels should be controlled below the PEL or TLV for this product (see Exposure Guidelines). Ensure adequate ventilation, especially in confined areas. Use explosion-proof equipment.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

Excellent resistance: Polyethylene/ethylenevinylalcohol. **Good resistance:** butyl rubber. Polyvinylalcohol (PVA). Tetrafluoroethylene. **Poor resistance:** Chloroprene rubber. Chlorinated polyethylene. Natural rubber. Neoprene. Nitrile rubber. Polyvinylchloride (PVC). Viton. Nitrile rubber/PVC

Hand protection:

Protective gloves. Impervious. Chemical resistant gloves.

Eye protection:

Chemical resistant goggles must be worn. Face-shield.

Skin and body protection:

Wear suitable protective clothing.

Respiratory protection:

Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Color	:	Colorless
Odor	:	Characteristic
Odor threshold	:	No data available
pH	:	No data available
pH solution	:	No data available
Melting point	:	-84 °C, -119.2 °F;
Freezing point	:	No data available
Boiling point	:	117 °C, 243 °F;
Flash point	:	14 °C, 57.2 °F;
Relative evaporation rate (butyl acetate=1)	:	1.6
Relative evaporation rate (ether=1)	:	5.6
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	20.2 hPa (20 °C)
Relative vapor density at 20°C	:	3.45
Density	:	0.7978 g/cm³
Solubility	:	Immiscible
Partition coefficient n-octanol/water (Log Pow)	:	1.9 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Auto-ignition temperature	:	860 °F
Decomposition temperature	:	Not applicable
Viscosity, kinematic	:	0.733 mm²/s
Viscosity, dynamic	:	0.585 mPa.s
Explosion limits	:	1 – 8 vol % 42 – 330 g/m³
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

Specific conductivity	:	5.2 µS/m
Saturation concentration	:	77 g/m³
VOC content	:	100 %
Other properties	:	Gas/vapour heavier than air at 20°C. Clear. Volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor. Vapors may form explosive mixture with air. Reacts with air to form peroxides.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Harmful if inhaled.

Methyl Isobutyl Ketone (108-10-1)	
LD50 oral rat	2080 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	≥ 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit)
LC50 Inhalation - Rat	8.2- 16.4,Rat; Experimental value
LC50 Inhalation - Rat [ppm]	2000 – 4000 ppm/4h (Rat; Experimental value)
ATE US (oral)	2080 mg/kg body weight
ATE US (gases)	2000 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

Methyl Isobutyl Ketone (108-10-1)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified
STOT-single exposure : May cause respiratory irritation.
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : 0.733 mm²/s
Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : Slight irritation. ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.
Symptoms/effects after eye contact : Eye irritation.
Symptoms/effects after ingestion : Risk of aspiration pneumonia. Gastrointestinal complaints. AFTER INGESTION OF HIGH QUANTITIES: Central nervous system depression. Symptoms similar to those listed under inhalation.
Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Feeling of weakness. Red skin. Skin rash/inflammation. Dry/sore throat. Gastrointestinal complaints. Loss of appetite. Headache. Dizziness. Lung tissue affection/degeneration.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

Methyl Isobutyl Ketone (108-10-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	2.06 g O_2/g substance
Chemical oxygen demand (COD)	2.16 g O_2/g substance
ThOD	2.72 g O_2/g substance
BOD (% of ThOD)	0.76

12.3. Bioaccumulative potential

Methyl Isobutyl Ketone (108-10-1)	
BCF - Fish [1]	2 – 5 (BCF)
Partition coefficient n-octanol/water (Log Pow)	1.9 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Methyl Isobutyl Ketone (108-10-1)	
Surface tension	0.024 N/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	Koc,101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Comply with federal, state, or local regulations for disposal. Dispose of as hazardous waste in compliance with local and national regulations. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
Waste Code: D001 - Ignitability (RQ 100 LB).U161 (RQ 5,000 LB).
Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.

Additional information	:	Handle empty containers with care because residual vapors are flammable. Empty containers should be decontaminated and taken for local recycling, recovery or waste disposal. Flammable vapors may accumulate in the container.
Ecology - waste materials	:	Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

DOT NA No	:	UN1245
UN-No. (IMDG)	:	1245
UN-No. (IATA)	:	1245

14.2. UN proper shipping name

Proper Shipping Name (DOT)	:	Methyl isobutyl ketone (When shipped in quantities greater than 5,000 lbs, RQ must be added to the shipping description.)
Proper Shipping Name (IMDG)	:	METHYL ISOBUTYL KETONE (When shipped in quantities greater than 5,000 lbs, RQ must be added to the shipping description.)
Proper Shipping Name (IATA)	:	Methyl isobutyl ketone (When shipped in quantities greater than 5,000 lbs, RQ must be added to the shipping description.)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	:	3
Hazard labels (DOT)	:	3

IMDG

Transport hazard class(es) (IMDG)	:	3
Hazard labels (IMDG)	:	3

IATA

Transport hazard class(es) (IATA)	:	3
Hazard labels (IATA)	:	3

14.4. Packing group

Packing group (DOT)	:	II

Packing group (IMDG)	:	II
Packing group (IATA)	:	II

14.5. Environmental hazards

Other information	:	No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT)	:	UN1245
DOT Special Provisions (49 CFR 172.102)	:	IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	150
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	202
DOT Packaging Bulk (49 CFR 173.xxx)	:	242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	60 L
DOT Vessel Stowage Location	:	B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

IMDG

Transport regulations (IMDG)	:	Subject to the provisions
Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1
EmS-No. (Fire)	:	F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	:	S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG)	:	B
Flash point (IMDG)	:	14°C c.c.

IATA

Transport regulations (IATA)	:	Subject to the provisions
PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
ERG code (IATA)	:	3L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Methyl Isobutyl Ketone (108-10-1)	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 311/312 Hazard Classes	Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Acute toxicity (any route of exposure) Health hazard - Serious eye damage or eye irritation Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard – Carcinogen

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.		
Methyl Isobutyl Ketone	CAS-No. 108-10-1	100%

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

Methyl Isobutyl Ketone (108-10-1)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

Methyl Isobutyl Ketone (108-10-1)	
U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	Yes
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

WARNING: This product can expose you to Methyl Isobutyl Ketone, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

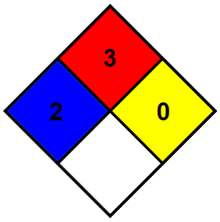
Revision date : 2/16/2023

Full text of H-phrases	
H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Safety Data Sheet (SDS), USA