

SAFETY DATA SHEET

Liquid Hardener



Section 1. Identification

GHS product identifier : Liquid Hardener
Product code : 40126
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Hardener for resins.

Uses advised against

Not applicable.

Supplier's details : J-B Weld Company
400 CMH Road
Sulphur Springs, TX 75482 USA
info@jbweld.com
Tel: +1 (903) 885-7696
Website: www.jbweld.com

Emergency telephone number : US: +1 (800) 535-5053 (INFOTRAC®)
Outside USA: +1 (352) 323-3500 (INFOTRAC® INTL)

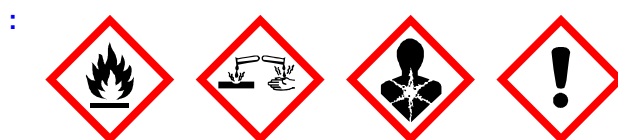
Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4
ORGANIC PEROXIDES - Type D
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION - Category 1B
SERIOUS EYE DAMAGE - Category 1
TOXIC TO REPRODUCTION - Category 2

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : Combustible liquid.
Heating may cause a fire.
Harmful if swallowed or if inhaled.
Causes severe skin burns and eye damage.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Section 2. Hazards identification

- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. Keep only in original packaging. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
- Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- Storage** : Store locked up. Protect from sunlight. Store at temperatures not exceeding @%1 °C/@%2 °F. Store in a well-ventilated place. Keep cool. Store separately.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	%	CAS number
2-Butanone, peroxide	≥30 - ≤60	1338-23-4
butanone	≥1 - ≤5	78-93-3
hydrogen peroxide solution	≥1 - ≤5	7722-84-1

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with § 1910.1200 (i)

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes severe burns.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Combustible liquid. Runoff to sewer may create fire or explosion hazard. This material increases the risk of fire and may aid combustion. Heating may cause a fire. May re-ignite itself after fire is extinguished. Hazardous decomposition may occur. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid contamination with reactive substances. Dilute with water and mop up if water-soluble. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid contamination with reactive substances. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Keep away from clothing, incompatible materials and combustible materials. Temperature control may be required. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : To avoid the risk of formation of shock-sensitive crystals or loss of stability, it is important to store the product within the recommended temperature range. Temperature control may be required. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store at temperatures not exceeding @%1 °C/@%2 °F. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Separate from reducing agents and combustible materials. Keep away from rust, iron and copper. Keep container tightly closed and sealed until ready for use. Prevent product contamination. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-Butanone, peroxide	NIOSH REL (United States, 10/2020). CEIL: 0.2 ppm CEIL: 1.5 mg/m ³ CAL OSHA PEL (United States, 5/2018). C: 1.5 mg/m ³ C: 0.2 ppm OSHA PEL 1989 (United States, 3/1989). CEIL: 0.7 ppm CEIL: 5 mg/m ³ ACGIH TLV (United States, 1/2023). C: 0.2 ppm C: 1.5 mg/m ³
butanone	NIOSH REL (United States, 10/2020). TWA: 200 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m ³ 15 minutes. CAL OSHA PEL (United States, 5/2018). STEL: 885 mg/m ³ 15 minutes. STEL: 300 ppm 15 minutes. TWA: 590 mg/m ³ 8 hours.

Section 8. Exposure controls/personal protection

hydrogen peroxide solution

TWA: 200 ppm 8 hours.
OSHA PEL (United States, 5/2018).
 TWA: 200 ppm 8 hours.
 TWA: 590 mg/m³ 8 hours.
OSHA PEL 1989 (United States, 3/1989).
 TWA: 200 ppm 8 hours.
 TWA: 590 mg/m³ 8 hours.
 STEL: 300 ppm 15 minutes.
 STEL: 885 mg/m³ 15 minutes.
ACGIH TLV (United States, 1/2023).
 TWA: 200 ppm 8 hours.
 TWA: 590 mg/m³ 8 hours.
 STEL: 300 ppm 15 minutes.
 STEL: 885 mg/m³ 15 minutes.
NIOSH REL (United States, 10/2020).
 TWA: 1 ppm 10 hours.
 TWA: 1.4 mg/m³ 10 hours.
CAL OSHA PEL (United States, 5/2018).
 TWA: 1.4 mg/m³, (as H₂O₂) 8 hours.
 TWA: 1 ppm, (as H₂O₂) 8 hours.
OSHA PEL (United States, 5/2018).
 TWA: 1 ppm 8 hours.
 TWA: 1.4 mg/m³ 8 hours.
OSHA PEL 1989 (United States, 3/1989).
 TWA: 1 ppm 8 hours.
 TWA: 1.4 mg/m³ 8 hours.
ACGIH TLV (United States, 1/2023).
 TWA: 1 ppm 8 hours.
 TWA: 1.4 mg/m³ 8 hours.

Biological exposure indices

Ingredient name	Exposure indices
butanone	ACGIH BEI (United States, 1/2023) BEI: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.

Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Use with adequate ventilation.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Colorless.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point, initial boiling point, and boiling range : Decomposes

Flash point : Open cup: 76°C (168.8°F)

Flammability : Not available.

Lower and upper explosion limit/flammability limit : Not available.

Vapor pressure :

Ingredient name	Vapor Pressure at 20 °C			Vapor pressure at 50 °C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
butanone	78.7564	10.5	EU A.4			
hydrogen peroxide solution	0.75006	0.1				
2-Butanone, peroxide	0.55	0.073				
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	<0.011	<0.0015				
dimethyl phthalate	0.00098	0.00013	OECD 104			

Relative vapor density : Not available.

Relative density : 1.1

Solubility in water : Not available.

Miscible with water : Yes.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	°C	°F	Method
butanone	404	759.2	
dimethyl phthalate	470	878	DIN 51794

Decomposition temperature : Not available.

SADT : 60°C (140°F)

Viscosity : Not available.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity : This product, in laboratory testing, either detonates partially, deflagrates slowly or shows a medium effect when heated under confinement.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following:
temperature increase
high temperature
Reactions may include the following:
hazardous decomposition
risk of causing fire

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Avoid increased storage temperature. Drying on clothing or other combustible materials may cause fire.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials
combustible materials
reducing materials
copper
iron
rust

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Butanone, peroxide butanone	LC50 Inhalation Gas.	Rat	200 ppm	4 hours
	LC50 Inhalation Vapor	Rat	3600 mg/m ³	4 hours
	LD50 Oral	Rat	470 mg/kg	-
	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
butanone	Skin - Mild irritant	Rabbit	-	24 hours 14 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
hydrogen peroxide solution	Eyes - Severe irritant	Rabbit	-	1 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
hydrogen peroxide solution	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
butanone	Category 3	-	Narcotic effects
hydrogen peroxide solution	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Harmful if inhaled.
Skin contact : Causes severe burns.
Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain
 watering
 redness
Inhalation : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 stomach pains
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Liquid Hardener	1360	N/A	N/A	11	N/A
2-Butanone, peroxide	470	N/A	200	3.6	N/A
butanone	2737	6480	N/A	N/A	N/A
hydrogen peroxide solution	500	N/A	N/A	11	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
butanone	Acute EC50 >500000 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute EC50 5091000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Larvae	48 hours
hydrogen peroxide solution	Acute LC50 3220000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute EC50 1.2 mg/l Marine water	Algae - <i>Dunaliella tertiolecta</i> - Exponential growth phase	72 hours
	Acute EC50 2320 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 93 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

Section 12. Ecological information

	Chronic NOEC 100 mg/l Fresh water	Fish - <i>Micropterus salmoides</i>	28 days
--	-----------------------------------	-------------------------------------	---------

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-Butanone, peroxide	<0.3	-	Low
butanone	0.3	-	Low
hydrogen peroxide solution	-1.36	-	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

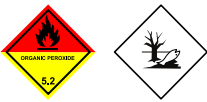




United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Dimethyl phthalate	131-11-3	Listed	U102
Methyl ethyl ketone peroxide (R,T)	1338-23-4	Listed	U160
Methyl ethyl ketone (MEK) (I,T)	78-93-3	Listed	U159

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN3105	UN3105	UN3105	UN3105	UN3105
UN proper shipping name	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S)) mixture	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S)) mixture	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S)) mixture	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S)) mixture	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S)) mixture

Section 14. Transport information

Transport hazard class(es)	5.2 	5.2 	5.2 	5.2 	5.2 
Packing group	-	-	-	-	-
Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

DOT Classification

: This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a. **Reportable quantity** 30.769 lbs / 13.969 kg [3.3548 gal / 12.699 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.23-2.25 (Class 5), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.

IMDG

: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA

: The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
Clean Water Act (CWA) 307: dimethyl phthalate

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
hydrogen peroxide solution	≥1 - ≤5	Yes.	1000	106.1	1000	106.1

SARA 304 RQ : 33333.3 lbs / 15133.3 kg [3634.4 gal / 13757.6 L]

Section 15. Regulatory information

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 4
 ORGANIC PEROXIDES - Type D
 ACUTE TOXICITY (oral) - Category 4
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN CORROSION - Category 1B
 SERIOUS EYE DAMAGE - Category 1
 TOXIC TO REPRODUCTION - Category 2

Composition/information on ingredients

Name	%	Classification
2-Butanone, peroxide	≥30 - ≤60	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 2
butanone	≥1 - ≤5	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
hydrogen peroxide solution	≥1 - ≤5	OXIDIZING LIQUIDS - Category 1 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	dimethyl phthalate	131-11-3	≥30 - ≤60
Supplier notification	dimethyl phthalate	131-11-3	≥30 - ≤60

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: DIMETHYLPHTHALATE; METHYL ETHYL KETONE PEROXIDE; METHYL ETHYL KETONE; HYDROGEN PEROXIDE

New York : The following components are listed: Dimethyl phthalate; 2-Butanone peroxide; Methyl ethyl ketone; Hydrogen peroxide

New Jersey : The following components are listed: DIMETHYL PHTHALATE; METHYL ETHYL KETONE PEROXIDE; METHYL ETHYL KETONE; HYDROGEN PEROXIDE

Pennsylvania : The following components are listed: 1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER; 2-BUTANONE, PEROXIDE; 2-BUTANONE; HYDROGEN PEROXIDE

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Eurasian Economic Union	: Russian Federation inventory : All components are listed or exempted.
Japan	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: All components are listed or exempted.
Turkey	: All components are listed or exempted.
United States	: All components are active or exempted.
Viet Nam	: All components are listed or exempted.

Section 16. Other information

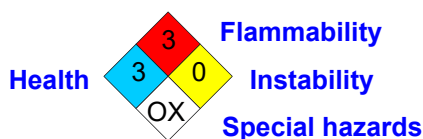
Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		2
Physical hazards		2

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4 ORGANIC PEROXIDES - Type D ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 TOXIC TO REPRODUCTION - Category 2	Regulatory data Regulatory data Regulatory data Regulatory data Regulatory data Regulatory data Regulatory data

History

Date of printing	: 5/31/2024
Date of issue/Date of revision	: 5/31/2024

Section 16. Other information

Date of previous issue : No previous validation

Version : 1

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

References : Not available.

▣ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.