

Weldfast CL-200 Part B Safety Data Sheet

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

1.1 Product identifier

- Weldfast CL-200 Part B

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

- Organic peroxide solution.
- This product is intended to be mixed only with its specific base adhesive; Weldfast CL-200 Part A

1.3 Details of the supplier of the safety data sheet

- NOV Fiber Glass Systems
17115 San Pedro Avenue, Suite 200
San Antonio, Texas 78232 USA
Tel: 1-210-477-7500
Fax: 1-210-231-5915
E-mail: Mike.Thayer@nov.com

1.4 Emergency telephone number(s)

- 3E Company, 24-Hour Support (Access Code/Contract Number: 333386)
 - USA, Canada 1-888-298-2344
 - Asia, Pacific 1-760-476-3960
 - Europe, Middle East, Africa 1-760-476-3961
 - Americas 1-760-476-3962

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Physical

- Organic peroxide, Type D

Health

- Acute toxicity, Category 4 (inhalation)
- Acute toxicity, Category 4 (oral)
- Acute toxicity, Category 5 (dermal)
- Eye irritation, Category 1
- Skin corrosion/irritation, Category 1B

Environmental

- Acute aquatic toxicity, Category 3

2.2 Label elements

Signal Word(s)

- DANGER

Pictogram(s)



Hazard Statements

- Physical
 - H242: Heating may cause a fire.
- Health
 - H302: Harmful if swallowed.
 - H313: May be harmful in contact with skin.
 - H314: Causes severe skin burns and eye damage.
 - H332: Harmful if inhaled.
- Environmental
 - H402: Harmful to aquatic life.

Precautionary Statements

- Prevention
 - P210: Keep away from heat/sparks/open flames/hot surfaces; no smoking.
 - P234: Keep only in original packaging.
 - P260: Do not breathe vapors.
 - P264: Wash skin and contaminated skin thoroughly after handling.
 - P270: Do not eat, drink or smoke when using this product.
 - P271: Use only outdoors or in well-ventilated area.
 - P273: Avoid release to the environment.
 - P280: Wear protective gloves/protective clothing/eye protection/face protection.
- Response
 - P301+P330+P331: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
 - 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.
 - P310: Immediately call a POISON CENTER or doctor/physician if swallowed or in eyes.
 - P378: Use water spray, foam, sand, dry chemical powder or carbon dioxide to extinguish.

- Storage
 - P403: Store in a well-ventilated place.
 - P410: Protect from sunlight.
- Disposal
 - P501: Dispose of contents/container in accordance with regulatory requirements.

2.3 Other Hazards

- PBT and vPvB assessment
 - None of the ingredients are considered to be either PBT or vPvB.

SECTION 3: Composition/information on Ingredients

3.1 Substances

- Not applicable

3.2 Mixtures

Chemical Identity	CAS No.	EC No.	Concentration Range (weight %)
2,2,4-Trimethyl-1,3-pentanediol diisobutanoate	006846-50-0	229-934-9	60 – 70
Methyl ethyl ketone peroxide	001338-23-4	215-661-2	30 – 35
Methyl ethyl ketone	000078-93-3	201-159-0	1 – 2
Hydrogen peroxide	007722-84-1	231-765-0	< 2

SECTION 4. First-aid measures

4.1 Description of first-aid measures

Inhalation

- Move to fresh air.
- If difficulty in breathing or respiratory irritation; seek immediate medical attention
- If breathing has stopped; seek immediate medical attention, perform artificial respiration

Skin contact

- Flush affected area thoroughly with water for at least 15 minutes, while removing contaminated clothing.
- If irritation develops or persists; seek medical attention.

Eye contact

- Immediately flush with water for at least 15 minutes.
- Remove contact lenses, if present and can be done easily.
- Seek immediate medical attention.

Ingestion

- Do not induce vomiting.
- Seek immediate medical attention.
- If conscious and alert, give a cupful of water.
- Never give anything by mouth to an unconscious person.
- If vomiting occurs, lay on side to reduce the risk of aspiration.

4.2 Most Important symptoms and effects, both acute and delayed

Acute

- Harmful if swallowed. Causes burns. Causes injury to the cornea and eyelids. Risk of serious damage to eyes.

Delayed

- Prolonged effects of overexposure are not known.

4.3 Indication of any immediate medical attention and special treatment needed

Eye contact

- Severely corrosive to the eyes and may cause delayed keratitis.
- Normally prescribed 15 minute eye irrigation may be difficult due to severe pain.
- Topical ocular anesthetic is essential to facilitate ocular lavage.

Ingestion

- Do not induce vomiting.
- Provide plenty of water.
- May result in severe ulceration, inflammation, and possible perforation of the upper alimentary tract with hemorrhage and fluid loss.

Aspiration

- Can result in severe lung injury.

Other

- Contact a poison control center for additional treatment information.
- Treat any additional effects symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Water spray, foam, sand, dry chemical powder, carbon dioxide.
- Do not use halons to extinguish fire.

5.2 Specific hazards arising from the substance or mixture

- On combustion, may emit toxic fumes of carbon dioxide, acetic acid, formic acid, and methyl ethyl ketone.
- Material will support combustion.
- Vapors may form explosive mixtures in air.

5.3 Advice for firefighters

- Wear self-contained breathing apparatus and protective clothing, as necessary.
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Do not breathe fumes/vapor.
- Avoid contact with skin and eyes.
- If a spill does occur, remove all sources of ignition in the area.
- Use only non-sparking tools during cleanup and place discarded material into a suitable container.

6.2 Environmental precautions

- Do not allow spilled materials to enter storm sewers, sanitary sewers, or impact groundwater.
- Do not allow spilled materials to remain on the ground.

6.3 Methods and materials for containment and cleaning up

- Use only non-sparking tools during cleanup and place discarded material into a suitable container for disposal.
- Eliminate all sources of ignition and do not generate flames or sparks.
- Spilled material can be covered with an inert absorbent (e.g., vermiculite) to assist removal.

6.4 Reference to other sections

- See also, *SECTION 8: Control parameters* and *SECTION 13: Disposal considerations*.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Avoid contact with skin and eyes and inhalation of vapors.
- Avoid sources of ignition, including smoking while using this product.
- Thoroughly wash exposed skin after working with this product.
- Only use this product in a well-ventilated area.
- Use spark-free tools.
- Empty containers may contain product residue and may be hazardous.

7.2 Conditions for safe storage, including any incompatibilities

- Store in cool location away from ignition sources or direct sunlight.
- Material is flammable: keep away from heat, sparks, and open flames.
- Store in original containers or in containers of the same construction material as original containers.
- For maximum quality, store below 30°C (86°F).

7.3 Specific end use(s)

- No additional data available.
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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

2,2,4-Trimethyl-1,3-pentanediol diisobutanoate
CAS No. 006846-50-0

Country	Occupational Exposure Limit (OEL) Values		Legal Basis
	Eight Hour TWA	Fifteen Minute STEL	
No OELs were found for this ingredient.			

Methyl ethyl ketone peroxide
CAS No. 001338-23-4

Country	Occupational Exposure Limit (OEL) Values		Legal Basis
	Eight Hour TWA	Fifteen Minute STEL	
Australia	None established	0.2 ppm (ceiling limit)	Workplace Exposure Standards for Airborne Contaminants
Belgium	0.2 ppm	None established	limites d'exposition professionnelle – VLEP/ Grenswaarden voor beroepsmatige blootstelling – GWBB
Canada - Alberta	None established	0.2 ppm (ceiling limit)	Occupational Safety and Health Code
Canada – British Columbia	None established	0.2 ppm (ceiling limit)	Occupational Health and Safety Regulation, Table of Exposure Limits for Chemical and Biological Substances
Canada - Manitoba	None established	0.2 ppm (ceiling limit)	Workplace Safety and Health Act, Part 36
Canada - Ontario	None established	0.2 ppm (ceiling limit)	Regulation 883, Control of Exposure to Biological or Chemical Agents
Canada - Quebec	None established	0.2 ppm (ceiling limit)	Regulation respecting occupational safety and health
Canada - Saskatchewan	None established	0.2 ppm (ceiling limit)	The Occupational Safety and Health Regulations
Denmark	1 mg/m ³	1 mg/m ³	Grænseværdier for stoffer og materialer
France	None established	0.2 ppm	Institut National de Recherche et de Sécurité (INRS)
Ireland	None established	0.2 ppm	Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations
Malaysia	None established	0.2 ppm	Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations
New Zealand	None established	0.2 ppm (ceiling limit)	Workplace Exposure Standards and Biological Exposure Indices
Singapore	None established	0.2 ppm	Workplace Safety and Health (General Provisions) Regulations
South Korea	None established	0.2 ppm (ceiling limit)	[Need reference]
Spain	None established	0.2 ppm	Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT)
Sweden	None established	0.2 ppm	Occupational Exposure Limit Values

			and Measures Against Air Contaminants (AFS 2005:17)
Switzerland	0.2 ppm	None established	Verordnung über die Verhütung von Unfällen und Berufskrankheiten (VUV)", Art. 50 Abs.3
USA (ACGIH)	None established	0.2 ppm (ceiling limit)	None
USA (NIOSH)	None established	0.2 ppm (ceiling limit)	NIOSH Pocket Guide to Chemical Hazards (Recommendations Only)
United Kingdom	None established	0.2 ppm	EH40 Workplace exposure limits

Methyl ethyl ketone
CAS No. 000078-93-3

Country	Occupational Exposure Limit (OEL) Values		Legal Basis
	Eight Hour TWA	Fifteen Minute STEL	
Australia	150 ppm	300 ppm	Workplace Exposure Standards for Airborne Contaminants
Austria	100 ppm	200 ppm	Austrian OEL Regulation
Belgium	200 ppm	300 ppm	limites d'exposition professionnelle – VLEP/ Grenswaarden voor beroepsmatige blootstelling – GWBB
Canada - Alberta	200 ppm	300 ppm	Occupational Safety and Health Code
Canada – British Columbia	50 ppm	100 ppm	Occupational Health and Safety Regulation, Table of Exposure Limits for Chemical and Biological Substances
Canada - Manitoba	200 ppm	300 ppm	Workplace Safety and Health Act, Part 36
Canada - Ontario	200 ppm	300 ppm	Regulation 883, Control of Exposure to Biological or Chemical Agents
Canada - Quebec	50 ppm	100 ppm	Regulation respecting occupational safety and health
Canada - Saskatchewan	200 ppm	300 ppm	The Occupational Safety and Health Regulations
China	300 mg/m ³	600 mg/m ³	GBZ 2.1-2007, Occupational exposure limits for hazardous agents in the workplace
Denmark	50 ppm	100 ppm	Grænseværdier for stoffer og materialer
France	200 ppm	300 ppm	Institut National de Recherche et de Sécurité (INRS)
Germany (AGS)	200 ppm	200 ppm	Technical Rule for Hazardous Substances (TRGS) No. 900
Germany (DFG)	200 ppm	200 ppm	List of MAK and BAT Values
Hungary	600 mg/m ³	900 mg/m ³	Decree 25/2000 (IX.30) on the Chemical Safety on Workplaces
Ireland	200 ppm	300 ppm	Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations
Italy	200 ppm	300 ppm	Minister of Labor and Social Policies Occupational Exposure Limits
Japan	200 ppm	None established	Administrative Control Levels for chemical substances
Latvia	67 ppm	300 ppm	Standard LVS 89:2004, Occupational exposure limit values of chemical substances in work environment

Malaysia	200 ppm	None established	Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations
New Zealand	150 ppm	300 ppm	Workplace Exposure Standards and Biological Exposure Indices
Poland	450 mg/m ³	900 mg/m ³	Principles and Methods of Assessing the Working Environment
Singapore	200 ppm	300 ppm	Workplace Safety and Health (General Provisions) Regulations
South Korea	200 ppm	300 ppm	[Need reference]
Spain	200 ppm	300 ppm	Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT)
Sweden	50 ppm	100 ppm	Occupational Exposure Limit Values and Measures Against Air Contaminants (AFS 2005:17)
Switzerland	200 ppm	200 ppm	Verordnung über die Verhütung von Unfällen und Berufskrankheiten (VUV)", Art. 50 Abs.3
The Netherlands	560 mg/m ³	900 mg/m ³	MAC-Values / Public limit values Dutch OEL Databank
USA (ACGIH)	200 ppm	300 ppm	None
USA (NIOSH)	200 ppm	300 ppm	NIOSH Pocket Guide to Chemical Hazards (Recommendations Only)
USA (OSHA)	200 ppm	None established	29 CFR 1910 Subpart Z, Toxic and Hazardous Substances
United Kingdom	200 ppm	300 ppm	EH40 Workplace exposure limits

Hydrogen peroxide
CAS No. 007722-84-1

Country	Occupational Exposure Limit (OEL) Values		Legal Basis
	Eight Hour TWA	Fifteen Minute STEL	
Australia	1 ppm	None established	Workplace Exposure Standards for Airborne Contaminants
Austria	1 ppm	2 ppm	Austrian OEL Regulation
Belgium	1 ppm	None established	limites d'exposition professionnelle – VLEP/ Grenswaarden voor beroepsmatige blootstelling – GWBB
Canada - Alberta	1 ppm	None established	Occupational Safety and Health Code
Canada – British Columbia	1 ppm	None established	Occupational Health and Safety Regulation, Table of Exposure Limits for Chemical and Biological Substances
Canada - Manitoba	1 ppm	None established	Workplace Safety and Health Act, Part 36
Canada - Ontario	1 ppm	None established	Regulation 883, Control of Exposure to Biological or Chemical Agents
Canada - Quebec	1 ppm	None established	Regulation respecting occupational safety and health
Canada - Saskatchewan	1 ppm	2 ppm	The Occupational Safety and Health Regulations
China	1.5 mg/m ³	None established	GBZ 2.1-2007, Occupational exposure limits for hazardous agents in the workplace

Denmark	1 ppm	2 ppm	Grænseværdier for stoffer og materialer
France	1 ppm	None established	Institut National de Recherche et de Sécurité (INRS)
Germany (DFG)	0.5 ppm	0.5 ppm	List of MAK and BAT Values
Ireland	1 ppm	2 ppm	Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations
Malaysia	1 ppm	None established	Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations
Singapore	1 ppm	None established	Workplace Safety and Health (General Provisions) Regulations
South Korea	1 ppm	None established	[Need reference]
Spain	1 ppm	None established	Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT)
Sweden	1 ppm	2 ppm (ceiling limit)	Occupational Exposure Limit Values and Measures Against Air Contaminants (AFS 2005:17)
Switzerland	0.5 ppm	0.5 ppm	Verordnung über die Verhütung von Unfällen und Berufskrankheiten (VUV)", Art. 50 Abs.3
USA (ACGIH)	1 ppm	None established	None
USA (NIOSH)	1 ppm	None established	NIOSH Pocket Guide to Chemical Hazards (Recommendations Only)
USA (OSHA)	1 ppm	None established	29 CFR 1910 Subpart Z, Toxic and Hazardous Substances
United Kingdom	1 ppm	2 ppm	EH40 Workplace exposure limits

8.2 Exposure controls

Appropriate engineering controls

- Provide adequate general and local exhaust ventilation to control airborne concentrations to below the occupational exposure limit values.

Personal protective equipment

- Eye and face protection
 - Approved safety glasses with side shields (e.g., ANSI Z87, EN166).
- Skin protection
 - Hand protection: Butyl rubber, nitrile rubber, or neoprene gloves are generally recommended. Different glove materials, thicknesses, and from different glove manufacturers may provide varying degrees of protection. Temperature and specific use can impact glove effectiveness. Some gloves may be intended to be used only once and then discarded, while others may be used for longer periods of time. The glove supplier should provide the user with information regarding permeability and breakthrough time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
 - Other skin protection: Such clothing as to minimize or eliminate the chance of skin contact.

- Respiratory protection
 - If ventilation is insufficient to keep airborne concentrations below the occupation exposure limit levels, full or half-mask respirator fitted with organic vapor cartridges. Filter masks may be of limited use in cases of high or unknown exposure.

Environmental exposure controls

- Do not flush into surface water or sanitary sewer system.
- Do not place directly onto ground.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance	Red liquid
- Odor	Faint
- Odor threshold	No data available
- pH	Slightly acidic
- Melting point/freezing point	No data available
- Initial boiling point and boiling range	No data available
- Flash point	Above the SADT value
- Evaporation rate	No data available
- Flammability (solid, gas)	Decomposition products may be flammable
- Upper/lower flammability or explosive limits	No data available
- Vapor pressure	No data available
- Vapor density (air = 1)	No data available
- Relative density	1 @ 20°C / 68°C
- Solubility(ies)	Partly miscible in water
- Partition coefficient: n-octanol/water	No data available
- Auto-ignition temperature	No data available
- Decomposition temperature	No data available
- Viscosity	No data available
- Explosive properties	No data available
- Oxidizing properties	No data available
- Active oxygen content	8.8 – 9.0%
- Peroxide content	30 – 35%
- SADT	60°C / 140°F

9.2 Other information

- No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

- No decomposition expected if product is stored as directed.

10.2 Chemical stability

- SADT is the lowest temperature at which a self-accelerating decomposition may occur. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion and fire can be caused by thermal decomposition at and above 60°C / 140°F. Contact with incompatible substances can cause decomposition at or below the SADT.

10.3 Possibility of hazardous reactions

- Polymerization does not occur.
- Mixture with adhesive component (Part A) will cause an exothermic reaction.

10.4 Conditions to avoid

- Direct sunlight, open flames, storage near flammable or combustible materials.
- To maintain quality, store in original closed container below 30°C / 86°F.

10.5 Incompatible materials

- Avoid contact with oxidizing and reducing agents, promoters (e.g., cobalt naphthenate), metals, metal alloys and salts, sulfur compounds, amines or any hot material.
- Avoid contact and unintended mixing with adhesive component (Part A).

10.6 Hazardous decomposition products

- Acetic acid, formic acid, propanoic acid, methyl ethyl ketone.
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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

2,2,4-Trimethyl-1,3-pentanediol diisobutanoate (CAS No. 006846-50-0)

- | | | | |
|--------------|------------|----------------|--------------|
| - Oral | Rat: | LD50 | > 1.55 mg/kg |
| | Mouse | LD50 | > 6400 mg/kg |
| - Inhalation | Rat | LC50 (6 hours) | > 5.30 mg/L |
| - Dermal | Guinea pig | LD50 | > 20 mL/kg |

Methyl ethyl ketone peroxide (CAS No. 001338-23-4)

- | | | | |
|--------------|------|----------------|-----------------|
| - Oral | Rat: | LD50 | 484 mg/kg |
| - Inhalation | Rat | LC50 (4 hours) | 200 ppm |
| - Dermal | Rat | LD50 | 6400-8000 mg/kg |

Methyl ethyl ketone (CAS No. 000078-93-3)

- | | | | |
|--------|------|------|-----------------|
| - Oral | Rat: | LD50 | 2400-5400 mg/kg |
|--------|------|------|-----------------|

- Inhalation Rat LC50 (6 hours) > 5000 ppm
- Dermal Rabbit LD50 6400-8000 mg/kg

Hydrogen peroxide (CAS No. 007722-84-1)

- Oral Rat: LD50 > 5000 mg/kg
- Inhalation Rat LC50 (4 hours) 0.17 ml/L
- Dermal Rat LD50 4060 mg/kg

Skin corrosion/irritation

2,2,4-Trimethyl-1,3-pentanediol diisobutanoate (CAS No. 006846-50-0)

- Guinea pig Slightly irritating

Methyl ethyl ketone peroxide (CAS No. 001338-23-4)

- Rabbit Corrosive

Methyl ethyl ketone (CAS No. 000078-93-3)

- Rabbit Moderately irritating

Hydrogen peroxide (CAS No. 007722-84-1)

- Rabbit Not irritating

Serious eye damage/irritation

2,2,4-Trimethyl-1,3-pentanediol diisobutanoate (CAS No. 006846-50-0)

- Rabbit Not irritating

Methyl ethyl ketone peroxide (CAS No. 001338-23-4)

- Rabbit Corrosive

Methyl ethyl ketone (CAS No. 000078-93-3)

- Rabbit Highly irritating

Hydrogen peroxide (CAS No. 007722-84-1)

- Rabbit Not irritating

Respiratory or skin sensitization

- Data for ingredients not listed were not found or not sufficient for classification.

2,2,4-Trimethyl-1,3-pentanediol diisobutanoate (CAS No. 006846-50-0)

- Inhalation No data found
- Skin Guinea pig Not sensitizing

Methyl ethyl ketone (CAS No. 000078-93-3)

- Inhalation No data found

- Skin Guinea pig Not sensitizing

Hydrogen peroxide (CAS No. 007722-84-1)

- Inhalation No data found
- Skin Guinea pig Not sensitizing

Germ cell mutagenicity

- Data for ingredients were not found or not sufficient for classification.

Carcinogenicity

- Data for ingredients were not found or not sufficient for classification.

Reproductive toxicity

- Data for ingredients were not found or not sufficient for classification.

STOT-single exposures

- Data for ingredients not listed were not found or not sufficient for classification.

Methyl ethyl ketone (CAS No. 000078-93-3)

- Central nervous system Narcotic

Hydrogen peroxide (CAS No. 007722-84-1)

- Respiratory system Irritation

STOT-repeated exposures

- Data for ingredients were not found or not sufficient for classification.

Aspiration hazard

- Data for ingredients were not found or not sufficient for classification.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

2,2,4-Trimethyl-1,3-pentanediol diisobutanoate (CAS No. 006846-50-0)

- | | | | |
|--------------------------|----------------------------|----------------|-------------|
| - Fish: | <i>Pimephales promelas</i> | LC50 (96-hour) | > 1.55 mg/L |
| - Crustacea | <i>Asellus intermedius</i> | LC50 (96-hour) | > 1.55 mg/L |
| | <i>Daphnia magna</i> | EC50 (48-hour) | > 1.46 mg/L |
| | <i>Gammarus fasciatus</i> | EC50 (96-hour) | > 1.55 mg/L |
| - Algae / Aquatic plants | No data found. | | |
| - Bacteria | No data found. | | |

Methyl ethyl ketone peroxide (CAS No. 001338-23-4)

- No data found.

Methyl ethyl ketone (CAS No. 000078-93-3)

- Fish	<i>Pimephales promelas</i>	LC50 (96-hour)	3220 mg/L
	<i>Lepomis macrochirus</i>	LC50 (48-hour)	5640 mg/L
- Crustacea	<i>Daphnia magna</i>	LC50 (48-hour)	520 mg/L
- Algae / Aquatic plants	<i>Microcystis aeruginosa</i>	EC3 (7-day)	>= 1200 mg/L
- Bacteria	<i>Pseudomonas phosphoreum</i>	EC50 (5-minutes)	5100 mg/L

Hydrogen peroxide (CAS No. 007722-84-1)

- Fish	<i>Pimephales promelas</i>	LC50 (96-hour)	16.4 mg/L
- Crustacea	<i>Daphnia magna</i>	EC50 (24-hour)	7.7 mg/L
	<i>Daphnia pulex</i>	EC50 (48-hour)	2.4 mg/L
- Algae / Aquatic plants	<i>Chlorella vulgaris</i>	EC50 (72-hour)	2.5 mg/L
- Bacteria	<i>Pseudomonas putida</i>	EC00 (16-hour)	11 mg/L

Chronic toxicity

Data for ingredients not listed were not found or not sufficient for classification.

Methyl ethyl ketone (CAS No. 000078-93-3)

- The U.S. EPA conducted QSAR analysis to estimate aquatic toxicity values for MEK. The analysis assumed pH 7.0, hardness less than or equal to 180.0 mg/L as CaCO₃, flow through methods, and mean measured concentrations. The estimated mean fish chronic toxicity value was 200 mg/L. No other chronic toxicity data for this ingredient was found.

Hydrogen peroxide (CAS No. 007722-84-1)

- Due to instability of ingredient, studies to aquatic chronic toxicity are not of relevance and standard procedures to determine chronic toxicity to terrestrial organisms cannot be performed.

12.2 Persistence and degradability

- Data for ingredients not listed were not found or not sufficient for classification.

2,2,4-Trimethyl-1,3-pentanediol diisobutanoate (CAS No. 006846-50-0)

- Inherently biodegradable.

Methyl ethyl ketone (CAS No. 000078-93-3)

- Biodegradable.

Hydrogen peroxide (CAS No. 007722-84-1)

- Biodegradable. Will not affect the performance of biological treatment works (activated sludge process) at concentrations less or equal to 200 mg/L.

12.3 Bioaccumulative potential

- Data for ingredients not listed were not found or not sufficient for classification.

Hydrogen peroxide (CAS No. 007722-84-1)

- Does not accumulate in the cells of living organisms.

12.4 Mobility in soil

- Data for ingredients were not found or insufficient for classification.

12.5 Results of PBT and vPvB assessment

- None of the ingredients are listed.

12.6 Other adverse effects

- No additional data is available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Must be disposed of in accordance with local regulatory requirements.
- Land disposal of product is discouraged and illegal in many jurisdictions.
- Sewer disposal is discouraged.
- Empty containers may contain hazardous residue and must be disposed accordingly.

SECTION 14: Transport information

- The transport information provided below conforms to the following:
 - UN Model Regulations
 - International Carriage of Dangerous Goods by Road (ADR)
 - International Carriage of Dangerous Goods by Rail (RID)
 - International Carriage of Dangerous Goods by Inland Waterways (ADN)
 - International Maritime Dangerous Goods (IMDG) Code
 - International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air

	If offered alone, the classification is as described below	If offered with the catalyst within the same inner packaging, the classification is as described below
14.1 UN number	3105	3269
14.2 UN proper shipping name	ORGANIC PEROXIDE TYPE D, LIQUID (Methyl ethyl ketone peroxide)	POLYESTER RESIN KIT
14.3 Transport hazard class(es)	5.2	3
14.4 Packing group	II	III
14.5 Environmental hazards	None	None

14.6 Special precautions for user	None	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Product is not offered nor intended to be transported in bulk quantities.	Product is not offered nor intended to be transported in bulk quantities.

SECTION 15: Regulatory information

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

The regulatory information provided below may not be comprehensive.

Canada

Controlled Products Regulation (CPR)

- This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Ingredient Disclosure List (IDL)

- All components of this mixture that are on the IDL above their specified concentration are disclosed in this SDS.

United States

EPCRA			CERCLA	RCRA	CAA	OSHA
Section 302 (EHS) TPQ (LB/KG)	Section 304 RQ (LB/KG)	Section 313	RQ (LB/KG)	P/U Codes	112(r) TQ (LB/KG)	Highly Hazardous Chemical
2,2,4-Trimethyl-1,3-pentanediol diisobutanoate (CAS No. 006846-50-0)						
--	--	--	--	--	--	--
Methyl ethyl ketone peroxide (CAS No. 001338-23-4)						
--	--	--	10 / 4.54	U160	--	--
Methyl ethyl ketone (CAS No. 000078-93-3)						
--	--	--	5000 / 2268	U159	--	--
Hydrogen peroxide (CAS No. 007722-84-1)						
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15.2 Chemical safety assessment

- No chemical safety assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Revision history

Revision Number	Revision Date	Revision Description

1	25-JUL-2013	Initial SDS creation in conformance with OSHA hazard communication standard (29 CFR 1910.1200) and UN Globally Harmonized System (GHS).
2	27-NOV-2013	Reformatted entire SDS.
3	1-AUG-2014	Reformatted entire SDS and added information in conformance with Regulation (EC) No. 1907/2006 (REACH).

Legend to abbreviations and acronyms used

- ACGIH American Conference of Governmental Industrial Hygienists
- ANSI American National Standards Institute
- CAA Clean Air Act
- CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
- CFR Code of Federal Regulations (US)
- EHS Extremely Hazardous Substance
- EN European Standard (French: *Européen Norme*)
- EPCRA Emergency Planning and Community Right-to-Know Act
- IBC Code International Bulk Chemical Code
- MARPOL Marine Pollution
- NIOSH National Institute for Occupational Safety and Health
- OSHA Occupational Safety and Health Administration (US)
- PBT Persistent Bioaccumulative and Toxic
- QSAR Quantitative Structure-Activity Relationship
- RCRA Resource Conservation and Recovery Act
- RQ Reportable Quantity
- SADT Self-Accelerating Decomposition Temperature
- STOT Specific Target Organ Toxicity
- TPQ Threshold Planning Quantity
- TQ Threshold Quantity
- vPvB very Persistent and very Bioaccumulative

Key literature references and sources for data

- ESIS. European chemical Substances Information System. <http://esis.jrc.ec.europa.eu/>.
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- NTP. 1993. NTP Technical Report on Toxicity Studies of Methyl Ethyl Ketone Peroxide (CAS No. 1338-23-4) in Dimethyl Phthalate (Cas No. 131-11-3) (45:55) Administered Topically to F344/N Rats and B6C3F₁ Mice. NIH Publication 93-3341. February 1993.
- USEPA. 2006. List of Lists, Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 112(r) of the Clean Air Act. EPA 550-B-01-003. October 2006.