

Safety Data Sheet

LOK 2270



AEROCHEM

1. Identification

Product identifier	LOK 2270
Product code	RALOK227050ML; RALOK2270250ML; RALOK22704LT
Other means of identification	High strength Threadlocker. TM/MD
Recommended use of the chemical and restrictions on use	Anaerobic resins and cyanoacrylate glues.
Manufacturer	AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada Tel. 514-630-2800 General Information: 1-888-592-5837 Fax 514-630-2828 www.aerochem.ca
Emergency phone number	Quebec Poison Center: 1-800-463-5060 (toll free in QC) Ontario and Manitoba Poison Centres: 1-800-268-9017 or 419-813-5900 BC Drug and Poison Information Centre: 1-800-567-8911 (toll free in BC) or contact your local poison control centre in the state/province or territory where you live. INFOTRAC® 1-800-535-5053. International call collect: 1-352-323-3500 24 hours/day, 7 days/week.

2. Hazard identification

Summary	Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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WHMIS 2015/OSHA HCS 2012/GHS



Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 2)
Skin sensitizer (Category 1)
Carcinogenicity (Category 2)

WARNING

H319: Causes serious eye irritation
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H351: Suspected of causing cancer
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing vapours and dust.
P264: Wash skin thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves, protective clothing and eye protection.
P308+313: IF exposed or concerned: Get medical attention.
P302+352: IF ON SKIN: Wash with plenty of water and soap.

P333+313: If skin irritation or a rash occurs: Get medical advice or attention.

P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337+313: If eye irritation persists: Get medical advice or attention.

P362+364: Take off contaminated clothing and wash before reuse.

P405: Store locked up.

P501: Dispose of contents and container in accordance with local regulations.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Polyglycol dimethacrylate	Proprietary 25	60 - 100 %
Polyglycol oleate	Proprietary 26	10 - 30 %
Saccharin	81-07-2	1 - 5 %
Synthetic Amorphous Fumed Silica	112945-52-5	1 - 5 %
Cumene hydroperoxide	80-15-9	1 - 5 %
Propylene glycol	57-55-6	1 - 5 %
Cumene	98-82-8	0.1 - 1 %

Note: Polyglycol dimethacrylate (Proprietary 25) and Polyglycol oleate (Proprietary 26) are Trade Secret from Henkel Corporation. No registration number and registration date have been provided in the original SDS mentioning these proprietary ingredients. Moreover, no acute toxicity data have been provided.

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Flush with water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses if easy to do. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause redness and irritation of the skin and to eyes. May cause an allergic reaction of the skin.
Notes to the physician	Apply a symptomatic and supportive treatment. If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	Dried powder, water fog, water spray, carbon dioxide (CO ₂), ABC fire extinguishing, chemical foam.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.

Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

6. Accidental release measures

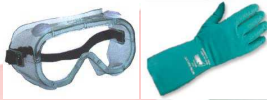
Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Ventilate the area well. Absorb with inert material (soil, sand, vermiculite) or wipe up or scrape up and place in an appropriate waste disposal container clearly identified. Finish cleaning by rinsing with water contaminated surface. Dispose via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling	Use in well ventilated area. Do not breathe vapours, mists or aerosols. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials (see section 10). Keep away from frost and extreme temperature variations.
Storage temperature	0 to 32°C (32 to 89.6°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Synthetic Amorphous Fumed Silica: 3000 mg/m ³ . Cumene: 900 ppm.				
Propylene glycol	TWA (8h)	Mist	50 ppm	10 mg/m ³ 155 mg/m ³	ON , US AIHA ON
Synthetic Amorphous Fumed Silica	TWA (8h)	Respirable Dust		1.5 mg/m ³	BC
		Respirable Dust		3 mg/m ³	ACGIH , ON
		Total Dust		4 mg/m ³	BC
		Respirable Dust		6 mg/m ³	RSST
		Total Dust		10 mg/m ³	ACGIH , ON
Cumene hydroperoxide	TWA (8h)		1 ppm		US AIHA
Cumene	STEL		75 ppm		BC
	TWA (8h)		25 ppm		BC
			50 ppm		ACGIH , ON
			50 ppm	246 mg/m ³	RSST

Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.
Individual protection measures	
Eye	Wear safety glasses with side shields. If there is a risk of contact with eyes, wear chemical splash goggles.
Hands	Wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. If necessary, wear an apron or long-sleeve protective coverall suit.
Respiratory	Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times the exposure limit, wear a half mask respirator with appropriate cartridges fitted with P100 filters.
Feet	Wear rubber boots to clean up a spill.
 Goggles Nitrile gloves	

9. Physical and chemical properties

Physical state	Liquid	Flammability	Non-flammable.
Colour	Vert	Flammability limits	2.6 to 12.5%
Odour	Slight odor	Flash point	>93.3°C (199.9°F) Tagliabue closed cup
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	N/Av.	Sensibility to electrostatic charges	N/Av.
Melting point	N/Av.	Sensibility to sparks and/or friction	No
Freezing point	N/Av.	Vapour density	N/Av. (Air = 1)
Boiling point	>149°C (300.2°F)	Relative density	1.08 kg/L (Water = 1)
Solubility	Slightly soluble in water.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	N/Av.	Decomposition temperature	N/Av.
Vapour pressure	<0.667kPa (5 mm Hg) @ 27°C (80.6°F)	Viscosity	N/Av.
Percent Volatile	N/Av.	Molecular mass	N/Av.

N/Av.: Not Available

N/Av.: Not Applicable

Und.: Undetermined

N/E: Not Established

10. Stability and reactivity

Reactivity	No information available for this product.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid contact with incompatible substances. Avoid high temperatures and intense heat.
Incompatible materials	Strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates), strong reducing agents (e.g. potassium, sodium, lithium, metal hydrides), strong bases (e.g. hydroxides, solutions of ammonia, amines, carbonates).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	<table border="0"> <tr> <td>Polyglycol dimethacrylate</td> <td>Ingestion >2000 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Polyglycol oleate</td> <td>Ingestion >2000 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td rowspan="2">Propylene glycol</td> <td>Ingestion 18000 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation >20 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td rowspan="3">Cumene hydroperoxide</td> <td>Skin 20800 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> <tr> <td>Ingestion 382 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation 1.4 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td rowspan="2">Saccharin</td> <td>Skin 500 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Ingestion 17000 mg/kg</td> <td>Mouse</td> <td>LD50</td> </tr> <tr> <td rowspan="3">Synthetic Amorphous Fumed Silica</td> <td>Skin 4694 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> <tr> <td>Ingestion >5000 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation >2.08 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td rowspan="3">Cumene</td> <td>Skin >5000 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> <tr> <td>Ingestion 1400 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation 39 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td></td> <td>Skin 10578 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> </table>	Polyglycol dimethacrylate	Ingestion >2000 mg/kg	Rat	LD50	Polyglycol oleate	Ingestion >2000 mg/kg	Rat	LD50	Propylene glycol	Ingestion 18000 mg/kg	Rat	LD50	Inhalation >20 mg/l/4h	Rat	LC50	Cumene hydroperoxide	Skin 20800 mg/kg	Rabbit	LD50	Ingestion 382 mg/kg	Rat	LD50	Inhalation 1.4 mg/l/4h	Rat	LC50	Saccharin	Skin 500 mg/kg	Rat	LD50	Ingestion 17000 mg/kg	Mouse	LD50	Synthetic Amorphous Fumed Silica	Skin 4694 mg/kg	Rabbit	LD50	Ingestion >5000 mg/kg	Rat	LD50	Inhalation >2.08 mg/l/4h	Rat	LC50	Cumene	Skin >5000 mg/kg	Rabbit	LD50	Ingestion 1400 mg/kg	Rat	LD50	Inhalation 39 mg/l/4h	Rat	LC50		Skin 10578 mg/kg	Rabbit	LD50
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Likely routes of exposure	Skin, eyes, inhalation, ingestion.																																																								
Delayed, immediate and chronic effects	<p>Eye contact May cause redness and irritation to eyes. Undiluted cumene hydroperoxide (CAS no 80-15-9) caused severe eye irritation and corneal damage in rabbits (IUCLID). Contact with dilute 10% solutions is likely to cause some pain and irritation. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with the other ingredients of this mixture gave not irritating to slightly irritating results.</p> <p>Skin contact May cause redness and irritation of the skin. Undiluted cumene hydroperoxide (CAS no 80-15-9) caused severe skin irritation and damages in rabbits (IUCLID). Diluted 10% solution of cumene hydroperoxide is irritating. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with the other ingredients of this mixture gave not irritating to slightly irritating results.</p> <p>Inhalation Prolonged or excessive exposure may cause respiratory tract irritation.</p> <p>Ingestion Ingestion can cause abdominal pain, nausea, cramps, headache, dizziness, diarrhea and vomiting.</p> <p>Respiratory or skin sensitization May cause an allergic reaction of the skin. Cumene hydroperoxide (CAS no 80-15-9) is known to have a skin sensitizing potential in human (TONEX). The Trade Secret Polyglycol dimethacrylate is considered to be a skin sensitizer in the original SDS.</p> <p>IARC/NTP Classification Common name IARC NTP Cumene 2B R</p>																																																								

	<p>IARC : 1- Carcinogenic; 2A- Probably carcinogenic; 2B- Possibly carcinogenic. NTP : K- Known to be carcinogens; R- Reasonably anticipated to be carcinogens.</p> <p>Carcinogenicity Contains a substance that can cause cancer based on animal data. The risk of cancer depends on duration and level of exposure.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p>Reproductive toxicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.</p> <p>Specific target organ toxicity - single exposure No target organ is listed.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p>
Interactive effects	No information available.
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. This value is not classified according to GHS. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.

12. Ecological information



Ecological toxicity	<p>Fish - Pimephales promelas - Fresh water LC50 46500 mg/L; 96 h (CAS no 57-55-6)</p> <p>Aquatic Invertebrate - Daphnia Magna, Water flea, fresh water EC50 43500 mg/L; 48 h (CAS no 57-55-6)</p> <p>Aquatic Plant - Algea, Selenastrum capricornutum EC50 1900 mg/L; 96 h (CAS no 57-55-6)</p> <p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 3.9 mg/L; 96 h (CAS no 80-15-9) OECD 203</p> <p>Aquatic Invertebrate - Daphnia Magna, Water flea (immobilization) EC50 18.8 mg/L; 48 h (CAS no 80-15-9) OECD 202</p> <p>Aquatic Plant - Algea, Scenedesmus subspicatus EC50 3.1 mg/L; 72 h (CAS no 80-15-9) OECD 201</p>
Persistence	Contains an or many ingredients that may be persistent in aquatic environment.
Degradability	No information available for this product. Propylene glycol (CAS no 57-55-6) is readily biodegradable (96% in 28 days) OECD Guideline 301D. Cumene hydroperoxide (CAS no 80-15-9) is not readily biodegradable, 2% to 7% after 28 days (OECD 301B).
Bioaccumulative potential	No information available for this product. Bioconcentration Factor (BCF) <1 indicating a low potential to bioaccumulate (Propylene Glycol). Propylene has a Bioconcentration Factor (BCF) value of 5, and its Log Kow value is 1.77, indicating its potential to bioaccumulate is low.
Mobility in soil	No information available for this product. Propylene Glycol (CAS no 57-55-6) will be distributed to air (3%), water (48.8%), soil (48.8%), and sediment (0.07%). Based on the high solubility in water, a high mobility in soil is to be expected. Cumene hydroperoxide (CAS no 80-15-9) has no bioaccumulation potential (BCF value of 9).
Other adverse effects	This chemical does not deplete the ozone layer.

						HON	HAP			
Polyglycol dimethacrylate	Proprietary 25	X								
Polyglycol oleate	Proprietary 26	X								
Saccharin	81-07-2	X	X	X						
Synthetic Amorphous Fumed Silica	112945-52-5	X								
Cumene hydroperoxide	80-15-9	X	X	X		X				
Propylene glycol	57-55-6	X				X				
Cumene	98-82-8	X	X	X		X	X			

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

Common name	CAS	Cancer	Reproductive and Developmental Toxicity
Cumene	98-82-8	X	

Other regulations				
<p>WHMIS 1988</p>  <p>D2A D2B Class D2A : Very toxic material causing other toxic effects Class D2B : Toxic material causing other toxic effects</p> <p>HMIS</p> <table border="1"> <tr><td><input type="radio"/> Health</td></tr> <tr><td><input type="radio"/> Flammability</td></tr> <tr><td><input type="radio"/> Reactivity</td></tr> <tr><td><input type="radio"/> Protective Equipment</td></tr> </table> <p>NFPA</p> 	<input type="radio"/> Health	<input type="radio"/> Flammability	<input type="radio"/> Reactivity	<input type="radio"/> Protective Equipment
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16. Other information

Date (YYYY-MM-DD)	AEROCHEM Inc. 2017-01-11
Version	01
Other information	<p>REFERENCES:</p> <ul style="list-style-type: none"> - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php - TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/ - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume

Chemicals, UNEP publications, <http://webnet.oecd.org/HPV/UI/Search.aspx>
- The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, www.ncbi.nlm.nih.gov
- Toxicological Review, Integrated Risk Information System (IRIS), USA Environment Protection Agency, www.epa.gov/iris

ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
HMIS: Hazardous Materials Identification System
NFPA: National Fire Protection Association
OSHA: Occupational Safety and Health Administration (USA)
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
RSST: Règlement sur la santé et la sécurité du travail (Québec)
GHS: Globally Harmonized System
IARC: International Agency for Research on Cancer
IDLH: Immediately Dangerous to Life or Health
STEL: Short Term Exposure Limit (15 min)
TWA: Time Weighted Averages
WHMIS: Workplace Hazardous Materials Information System

TM/MD

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