

Safety Data Sheet

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

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

Product ID: ACL 8695
Product Name: Silicone Conformal Coating
Revision Date: Mar 27, 2017 **Date Printed:** Mar 27, 2017
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: ACL, Inc.
Address: 840 W. 49TH PL, CHICAGO, IL 60609
Emergency Phone: CHEMTREC US : 1-800-424-9300, INTERNATIONAL CALLS : 1-703-527-3887
Information Phone Number: 847-981-9212
Fax:
Product/Recommended Uses: Electrical Component Coating and Insulation

SECTION 2) HAZARDS IDENTIFICATION**Classification:**

Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) - Category 3
Specific Target Organ Toxicity - Repeated Exposure - Category 2
Skin Irritation - Category 3
Eye Irritation - Category 2A
Skin Sensitizer - Category 1
Reproductive Toxicity - Category 2
Aerosols Category 1
Acute toxicity Oral - Category 5

Pictograms:**Signal Word:**

Danger

Hazardous Statements - Physical:

H222 - Extremely flammable aerosol
H229 - Pressurised container: May burst if heated

Hazardous Statements - Health:

H336 - May cause drowsiness or dizziness
H373 - May cause damage to organs through prolonged or repeated exposure
H316 - Causes mild skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H361 - Suspected of damaging fertility or an unborn child
H303 - May be harmful if swallowed

Precautionary Statements - General:

- P101 - If medical advice is needed, have product container or label at hand.
- P102 - Keep out of reach of children.
- P103 - Read label before use.

Precautionary Statements - Prevention:

- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271 - Use only outdoors or in a well-ventilated area.
- P233 - Keep container tightly closed.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 - Wash thoroughly after handling.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- 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.
- P211 - Do not spray on an open flame or other ignition source.
- P251 - Do not pierce or burn, even after use.

Precautionary Statements - Response:

- P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 - Call a POISON CENTER/doctor if you feel unwell.
- P314 - Get Medical advice/attention if you feel unwell.
- P332 + P313 - If skin irritation occurs: Get medical advice/attention.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 - If eye irritation persists: Get medical advice/attention.
- P302 + P352 - IF ON SKIN: Wash with plenty of water.
- P333 + P313 - If skin irritation or a rash occurs: Get medical advice/attention.
- P321 - For specific treatment see section 4.
- P362 + P364 - Take off contaminated clothing. And wash it before reuse.
- P308 + P313 - IF exposed or concerned: Get medical advice/attention.

Precautionary Statements - Storage:

- P403 + P405 - Store in a well-ventilated place. Store locked up.
- P405 - Store locked up.
- P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Precautionary Statements - Disposal:

P501 - Dispose of contents/container to disposal recycling center. Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Acute toxicity of 14.4% of the mixture is unknown

SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0068476-86-8	Petroleum gases, liquefied, sweetened	35% - 57%
0000109-60-4	N-PROPYL ACETATE	7% - 15%
0000123-86-4	N-BUTYL ACETATE	4% - 9%
0000107-51-7	OCTAMETHYLTRISILOXANE	4% - 9%

0068952-93-2	Siloxanes and Silicones, di-Me, Me methoxy, methoxy Ph, polymers with Me Ph silsesquioxanes	4% - 9%
0000078-93-3	METHYL ETHYL KETONE	3% - 6%
0029911-28-2	DIPROPYLENE GLYCOL, BUTYL ETHER	3% - 6%
0000064-17-5	ETHYL ALCOHOL	3% - 6%
0000108-88-3	TOLUENE	0.0% - 0.6%
0001185-55-3	TRIMETHOXYMETHYLSILANE	0.0% - 0.6%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation:

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If exposed/feel unwell/concerned: Call a POISON CENTER/doctor.

Eliminate all ignition sources if safe to do so.

Skin Contact:

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before re-use.

IF exposed or concerned: Get medical advice/attention.

Eye Contact:

Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Ingestion:

Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position. Do not give anything.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Dry chemical, foam, carbon dioxide is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Do not direct a solid stream of water or foam into hot, burning pools this may result in frothing and increase fire intensity.

Unsuitable Extinguishing Media:

No data available.

Specific Hazards in Case of Fire:

Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Product is highly flammable and forms explosive mixtures with air, oxygen, and all oxidizing agents. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. High temperatures can cause sealed containers to rupture due to a build up of internal pressures. Cool with water.

DO NOT cut, drill, grind, or weld near full, partially full, or empty product containers.

Container could potentially burst or be punctured upon mechanical impact, releasing flammable vapors.

Fire-Fighting Procedures:

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions:

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

Recommended Equipment:

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

Personal Precautions:

Avoid breathing vapor. Avoid contact with skin, eye or clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions:

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning Up:

Cover spills with inert absorbent and place in closed chemical waste containers.

SECTION 7) HANDLING AND STORAGE

General:

- Wash hands after use.
- Do not get in eyes, on skin or on clothing.
- Do not breathe vapors or mists.
- Use good personal hygiene practices.
- Eating, drinking and smoking in work areas is prohibited.
- Remove contaminated clothing and protective equipment before entering eating areas.
- Eyewash stations and showers should be available in areas where this material is used and stored.

Ventilation Requirements:

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements:

- Do not cut, drill, grind, weld or perform similar operations on or near containers. Do not pressurize containers to empty them.
- Store at temperatures below 120°F.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection:

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection:

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
ETHYL ALCOHOL	1000	1900			1			1000	1900			
METHYL ETHYL KETONE	200	590			1			200	590	300	885	

N-BUTYL ACETATE	150	710			1			150	710	200	950	
N-PROPYL ACETATE	200	840			1			200	840	250	1050	
Petroleum gases, liquefied, sweetened	500	2000			1							
TOLUENE	200 (a)/ 300 ceiling	0.2	500ppm /10 minutes (a)		1,2			100	375	150	560	

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
ETHYL ALCOHOL			1000	
METHYL ETHYL KETONE	200	590	300	885
N-BUTYL ACETATE	50		150	
N-PROPYL ACETATE	200	835	250	1040
Petroleum gases, liquefied, sweetened				
TOLUENE	20	0.2		

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

VOC Actual(g/l)	538.46643 g/l
Density	5.54421 lb/gal
Density VOC	4.49359 lb/gal
% VOC	81.05000%

Appearance	Clear Liquid
Odor Threshold	N.A.
Odor Description	Characteristic Solvent
pH	N.A.
Flammability	N/A
Water Solubility	N.A.
Flash Point Symbol	N.A.
Flash Point	N.A.
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Pressure	N.A.
Vapor Density	N.A.
Freezing Point	N.A.
Melting Point	N.A.
Low Boiling Point	N.A.
High Boiling Point	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	N.A.
VOC Composite Partial Pressure	N.A.

SECTION 10) STABILITY AND REACTIVITY

Stability:

Material is stable at standard temperature and pressure.

Hazardous Reactions/Polymerization:

Will not occur.

Conditions to Avoid:

Keep away from direct sunlight and other sources of ignition.
Dropping containers may cause bursting.

Incompatible Materials:

Avoid strong oxidizers, reducers, acids, and alkalis.

Hazardous Decomposition Products:

No data available.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation:

Prolonged or repeated contact with this product may dry and/or defat the skin. This product may be harmful if it is absorbed through the skin.

Causes mild skin irritation

Serious Eye Damage/Irritation:

Eye contact may lead to permanent damage if not treated promptly.

Liquid or vapors may irritate the eyes.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Eye contact may lead to permanent damage if not treated promptly.

Causes serious eye irritation

Respiratory/Skin Sensitization:

May cause an allergic skin reaction

Germ Cell Mutagenicity:

No Data Available

Carcinogenicity:

No Data Available

Reproductive Toxicity:

Suspected of damaging fertility or an unborn child

Specific Target Organ Toxicity - Single Exposure:

May cause drowsiness or dizziness

Specific Target Organ Toxicity - Repeated Exposure:

Prolonged exposure may cause damage to her central nervous system, lungs, skin and eyes.

May cause damage to organs through prolonged or repeated exposure

Aspiration Hazard:

No Data Available

Acute Toxicity:

If inhaled, may cause dizziness, nausea, upper respiratory irritation, drowsiness, mental depression or narcosis, difficulty in breathing, irregular heart beats.

0000108-88-3 TOLUENE

LC50 (rat): 8800 ppm (4-hour exposure) (2)

LC50 (rat): 6000 ppm (6-hour exposure) (3)

LD50 (oral, rat): 2600 to 7500 mg/kg (3,5,11,17)

LD50 (oral, neonatal rat): less than 870 mg/kg (3)

LD50 (dermal, rabbit): 12,225 mg/kg (reported as 14.1 ml/kg) (1)

0000064-17-5 ETHYL ALCOHOL

LC50 (mouse): Approximately 21000 ppm (4-hour exposure); cited as 39 g/m³ (4-hour exposure) (1, unconfirmed)

LD50 (oral, rat): 7060 mg/kg (41); 10600 mg/kg (41); 13660 mg/kg (37)

LD50 (oral, mouse): 3450 mg/kg (1, unconfirmed)

LD50 (oral, guinea pig): 5560 mg/kg (37)

0000078-93-3 METHYL ETHYL KETONE

LC50 (male rat): 11,700 ppm (4-hour exposure) (3)
LC50 (male rat): 11,300 ppm (4-hour exposure); cited as 23.5 mg/L (7,990 ppm) (8-hour exposure) (4)
LD50 (oral, adult male rat): 2,740 mg/kg; cited as 3.4 mL/kg (1)
LD50 (dermal, rabbit): greater than 5,000 mg/kg (29)

0000123-86-4 N-BUTYL ACETATE

LC50 (rat): 1802 mg/m3; 4-hour exposure (aerosol)(9) Note: A lower LC50 (aerosol) value of 760 mg/m3 (160 ppm); 4-hour exposure has been reported.(11,27) Extensive research has failed to confirm this value.
LD50 (oral, rat): 10770 mg/kg (12, unconfirmed)
LD50 (oral, mouse): 7100 mg/kg (5)
LD50 (oral, rabbit): 7400 mg/kg (cited as 64 millimols/kg) (13)
LD50 (dermal, rabbit): Greater than 5000 mg/kg (3, unconfirmed)

0000109-60-4 N-PROPYL ACETATE

LD50 (oral, rat): 8700 mg/kg; cited as 9.8 mL/kg (4)
LD50 (oral, mouse): 8300 mg/kg (5)
LD50 (oral, rabbit): 6600 mg/kg; cited as 65 mmols/kg (6)
LD50 (dermal, rabbit): Greater than 17700 mg/kg; cited as 20 mL/kg (4)

Potential Health Effects - Miscellaneous

0000064-17-5 ETHYL ALCOHOL

The following medical conditions may be aggravated by exposure: liver disease. Tests in some laboratory animals indicate this compound may have embryotoxic activity. Tests in animals demonstrate reproductive toxicity. Ingestion may cause any of the following: stupor (central nervous system depression), gastrointestinal irritation. If absorbed through the skin, may be: harmful.

0000078-93-3 METHYL ETHYL KETONE

Material is irritating to mucous membranes and upper respiratory tract. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, eyes, respiratory system, skin. Prolonged or repeated overexposure may cause any of the following: conjunctivitis, dermatitis. High concentrations have caused embryotoxic effects in laboratory animals. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.

0000108-88-3 TOLUENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heart beats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

0000123-86-4 N-BUTYL ACETATE

May cause abnormal liver function. The following medical conditions may be aggravated by exposure: respiratory system. Tests for embryotoxic activity in animals has been inconclusive. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

Chronic Exposure

0000108-88-3 TOLUENE

TERATOGENIC EFFECTS:Toluene has been Classified as POSSIBLE for humans.

SECTION 12) ECOLOGICAL INFORMATION

Toxicity:

No Data Available

Persistence and Degradability:

No data available.

Bio-accumulative Potential:

No data available.

Mobility in Soil:

No data available.

Other Adverse Effects:

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal:

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

	Proper Shipping Name	Hazard Class	UN number	NOTE
US DOT ground	Consumer Commodity	ORM-D	NA	Flame projection testing in accordance with 16CFR1500.45 found no flame projection.
US DOT air	AEROSOLS, Flammable, (each not exceeding 1L capacity)	2.1	UN1950	May be classified as Consumer commodity, ID 8000, class 9, Y963 packing instruction
IATA	AEROSOLS, Flammable (each not exceeding 1L capacity)	2.1	UN1950	IATA Labels required: <u>Flammable Gas</u> Limited Quantity: Y203
IMDG	AEROSOLS, Flammable (each not exceeding 1L capacity)	2.1	UN1950	Limited Quantity: Y203

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0068476-86-8	Petroleum gases, liquefied, sweetened	35% - 57%	DSL,SARA312,VOC,TSCA
0000109-60-4	N-PROPYL ACETATE	7% - 15%	DSL,SARA312,VOC,TSCA
0000123-86-4	N-BUTYL ACETATE	4% - 9%	Canada_NPRI,DSL,CERCLA,SARA312,VOC,TSCA
0000107-51-7	OCTAMETHYLTRISILOXANE	4% - 9%	DSL,SARA312,VOC_exempt,TSCA
0068952-93-2	Siloxanes and Silicones, di-Me, Me methoxy, methoxy Ph, polymers with Me Ph silsesquioxanes	4% - 9%	DSL,SARA312,TSCA
0000078-93-3	METHYL ETHYL KETONE	3% - 6%	Canada_NPRI,DSL,CERCLA,SARA312,VOC,TSCA,RCRA
0029911-28-2	DIPROPYLENE GLYCOL, BUTYL ETHER	3% - 6%	DSL,SARA312,VOC,TSCA
0000064-17-5	ETHYL ALCOHOL	3% - 6%	Canada_NPRI,DSL,SARA312,VOC,TSCA
0000108-88-3	TOLUENE	0.0% - 0.6%	SARA313, Canada_NPRI,DSL,CERCLA,HAPS,SARA312,VHAPS,VOC,TSCA,RCRA,CA_Prop65 - California Proposition 65
0001185-55-3	TRIMETHOXYMETHYLSILANE	0.0% - 0.6%	DSL,SARA312,VOC,TSCA

SECTION 16) OTHER INFORMATION

Glossary:

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; N.A. - Not Available; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

Version 1.0:

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