Page 1 of 10

SDS# 8690 Rev. 22-Mar-16

Safety Data Sheet

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

Section 1 CHEMICAL PRODUCT SECTION

Identification: Product Name: Acrylic Conformal Coating

Product Number: 8690, AS1212

Product description: Insulative acrylic coating for PCB and flex circuit protection

Product type: aerosol

Application: Industrial applications

Manufacturer: ACL Incorporated

840 W 49th Place Chicago, Il 60609

PH: (01) 847.981.9212 [U.S.A.] FAX: (01) 847.981.9278 [U.S.A.]

Email of responsible party for SDS: marykay@aclstaticide.com

US/Canada Emergency TEL: INFOTRAC: (01) 800.535.5053 (day or night) International Emergency TEL: INFOTRAC: 352.323.3500 (day or night)

Section 2 HAZARDOUS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.1 Classification of the substance or mixture

Product definition: FLAMMABLE GASES UNDER PRESSURE - Liquefied flammable gas

GHS-US classification

Physical: Flammable Aerosols -category 1

Health: Skin irritation - category 2

Eye irritation - category 2A

Environmental: None

2.2 Label Elements

Hazard Pictograms:







Signal Word: Danger

Hazard Statement:

Extremely flammable aerosol (H222)

Pressurized container; may burst if heated (H229)

Harmful if swallowed or in contact with skin (H302 + H312)

Causes skin irritation (H315)

Causes serious eye irritation (H319)

Precautionary Statements:

General:

If medical advice is needed, have container or label at hand (P101)

Keep out of reach of children (P102)

Read label before use (P103)

Prevention:

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking (P210)

Do not spray on an open flame or other ignition source. (P211)

Do not pierce or burn, even after use. (P251)

Wash hands thoroughly after handling (P264)

Do not eat, drink, or smoke when using this product (P270)

Wear protective gloves, protective clothing and eye protection (P280)

Response:

IF IN EYES, Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305 +P351 + P338)

If eye irritation persists, get medical attention or advice (P337 + P313)

IF ON SKIN, wash with plenty of water. (P302 + P352)

Take off contaminated clothing and wash before reuse (P362 + P364)

Call doctor center if you feel unwell (P312)

If skin irritation or rash occurs: Get medical attention (P332 + P313)

Storage:

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F (P410 + P412)

Disposal: Dispose of contents in accordance with state and local laws as they vary (P501)

Unknown Acute Toxicity: No data available

Section 3	COMPOSIT	ION / INFORMA	ATION ON INGREDIENTS	
CHEMICAL	C.A.S. Number	Weight %	EU Classification	
n-Propyl Acetate	109-60-4	15-25%	F; R11 Xi; R36 R66, R67	
Butyl Acetate DPNB Isopropyl Alcohol	123-86-4 29911-28-2 67-63-0	10-20% 2-12% 2-12%	R10, R66, R67 none F; R11 Xi; R36	
Methyl Ethyl Ketone	78-93-3	2-12%	R67 F; R11 Xi; R36	
Acrylic Coating Liquefied Petroleum Gas	Mixture 68476-86-8	10-20% 30-40%	R66, R67 F; R11 F+; R12 Carc. Cat. 1; R45 Muta. Cat. 2; R46	

Section 4 FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Move to fresh air. If the affected person is not breathing, apply artificial respiration. Get immediate medical attention.

Eye Contact: Immediately flush eyes with large amounts of cold water for 15 minutes while holding eyelids open. If irritation persists, get medical attention.

Skin Contact: If irritated, Wash with soap and water. Get medical attention if irritation persists.

Ingestion: If the material is swallowed, get immediate medical attention or advice. DO NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Seek immediate medical attention. Do not give anything.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. Wear gloves

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data

Section 5

FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use dry chemical, carbon dioxide, or foam. Use water to cool fire-exposed containers and to protect personnel.

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

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: Dangerous when exposed to heat or flame. This material can be ignited by flame or spark under normal atmospheric condition. Pressurized Container: May explode when exposed to heat or flame. Empty containers may retain product residue including flammable vapors. DO NOT cut, drill, grind, or weld near full, partially full, or empty product containers

Hazardous thermal decomposition products: Unknown

5.3 Advice for firefighters

Special protective actions for fire-fighters: At elevated temperatures (over 120°F) containers exposed to direct flame or heat contact should be cooled with water to prevent weakening of container structure. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Special protective equipment for fire-fighters: Container could potentially burst or be punctured upon mechanical impact, releasing flammable vapors. **Unusual Fire & Explosion Hazards:** 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 buildup of internal pressures. Cool with water

Section 6

ACCIDENTAL RELEASE MEASURES

6.1 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. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: Remove all sources of ignition and ventilate area. Evacuate the area promptly and keep upwind of the spilled material.

6.2 Environmental precautions Isolate the spill area to prevent people from entering. Wear appropriate protective equipment and clothing during clean-up. Stop discharge if safe to do so. Stop material from contaminating soil or from entering sewers or water streams. Cover spills with non-flammable absorbent and place in closed chemical waste containers.

6.3 Methods and materials for containment and cleaning up

Small spill: Immediately contact emergency personnel. Stop leak if without risk

Large spill: Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

Section 7

HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures: Keep this product away from heat, sparks or open flame. Avoid sources of ignition Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Do not get in eyes or on skin or clothing. Avoid breathing gas. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Advice on general occupational hygiene: Attention! Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container. 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.

7.2 Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed and sealed until ready for use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 50 °C (122 °F).

7.3 Specific end use(s)

Recommendations: Acrylic coating for PCB and flex circuit protection

Industrial sector specific solutions: Unknown

Section 8

EXPOSURE CONTROL / PERSONAL PROTECTION

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Exposure Limits 8 Hours TWA (ppm)

Chemical Name	OSHA PEL	ACGIH TLV	OSHA-STEL
n-Propyl Acetate	NE	200ppm	250ppm
Butyl Acetate	150 ppm	150 ppm	200 ppm
DPNB	NIF	NIF	NIF
Isopropanol	400 ppm	400 ppm	500 ppm
Methyl Ethyl Ketone	200 ppm	200 ppm	NE
Acrylic Coating	200 ppm	NE	NE
Liquefied Petroleum Gas	NE	1000 ppm	NE

8.2 Exposure controls

Appropriate engineering controls: Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

Individual protection measures

Hygiene measures: Wash hands before eating, smoking and using the lavatory and at the end of the working period. When using, do not eat or drink. When using, do not smoke.

Eye/face protection: Ensure that eyewash stations are proximal to the work-station location. Safety glasses with side shields are recommended.

Skin protection: Avoid prolonged or repeated skin contact. Impervious gloves such as nitrile, neoprene or rubber are recommended.

Hand protection: Impervious gloves should be used when handling this product. Use of protective coveralls and long sleeves is recommended.

Body protection: NE

Respiratory protection: Use NIOSH approved respiratory protection. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA).

Environmental exposure controls: For normal conditions, protection is not necessary.

In Case of Large Spill: Keep out of drains. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Aerosol, liquid, clear colorless
Odor	Strong, fruity,ethereal solvent
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	(liquid) >210F (>99C) (propellant) -43.7 F (-42C)
Flash point and method	concentrate: < 52.2°F / < 14°C propellant: -156°F / -104.4°C
Evaporation rate (H2O=1)	>1 (butyl acetate=1)
Flammability (solid, gas, liquid)	Non flammable
Upper/lower flammability or explosive limits	8.0 upper % by volume concentrate 2.0 lower % by volume concentrate
	9.5 upper % by volume propellant 1.9 lower % by volume propellant
Vapor pressure	12 mmHg @ 68 F
Vapor density (air=1)	>1
Water solubility.	negligible
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Kinematic Viscosity	No data available
Dynamic viscosity	No data available
Explosive properties	No data available

9.2 Other safety information

Specific Gravity	0.91 @ 68F (liquid)
Viscosity	>1
%Volatile	90

Section 10 STABILITY AND REACTIVITY

- 10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability: Stable under normal storage conditions.
- 10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid: Keep away from heat, direct sunlight, open flames, sparks, or sources of ignition.
- 10.5 Incompatible Materials: Strong oxidizing agents, reducing agents, acids, bases.
- **10.6 Hazardous decomposition products**: Carbon monoxide, carbon dioxide and hydrocarbon vapors.

Section 11 TOXICOLOGY INFORMATION

Acute toxicity:

Product/ingredient name	Result	Species	Dose	Exposure
n-Propyl Acetate:	LC50 Inhalation	Rat	8000 mg/m3	8 hours
	LD50 Oral	Rat	9,370 mg/kg	
Butyl Acetate:	LC50 Inhalation	Rat	2000 ppm	4 hours
-	LD50 Oral	Rat	10.8 mg/kg	
	LD50 Dermal	Rabbit	17,600 mg/kg	
DPNB:	LD50 Oral	Rat	3,700 mg/kg	
	LD50 Dermal	Rabbit	5,3000 mg/kg	
Isopropyl Alcohol	LC50 Inhalation	Rat	16,000 mg/kg	
	LD50 Oral	Mouse	3600 mg/kg	
	LD50 Dermal	Rabbit	12,800 mg/kg	
Methyl Ethyl Ketone:	LC50 Inhalation	Rat	11,700 mg/kg	
	LD50 Oral	Rat	2300 – 3500 mg/kg	
	LD50 Dermal	Rabbit	>8,000 mg/kg	
Liquefied Petroleum Gas	LC50 Inhalation	Rat	658 mg/kg	

Irritation/Corrosion:

Product/ingredient name	Result	Species	Exposure
n-Propyl Acetate:	No skin irritation	Rabbit	
	Moderate eye irritation	Rabbit	
Butyl Acetate:	No skin irritation	Rabbit	
	No eye irritation	Rabbit	
DPNB:	skin irritation	Rabbit	
	Serious eye irritation	Rabbit	
Isopropyl Alcohol	Eye irritation	Rabbit	24 hours
	Mild skin irritation	Rabbit	
Methyl Ethyl Ketone:	No skin irritation	Rabbit	
	eye irritation	Rabbit	
Liquefied Petroleum Gas	No data		

Sensitization:

Product/ingredient name	Result	Species	Exposure
n-Propyl Acetate:	No data		
Butyl Acetate:	No data		
DPNB:	No data		
Isopropyl Alcohol	Does not cause skin	Guinea Pig	Bueler
	sensitization		
Methyl Ethyl Ketone:	No data		
Liquefied Petroleum Gas	No data		

Mutagenicity:

Product/ingredient name	Result	Species	Test
n-Propyl Acetate:	No data		
Butyl Acetate:	negative	S. typhimurium	Ames
DPNB:	No data		
Isopropyl Alcohol	Negative	Bacteria	Ames test Method: OECD Test Guideline 471
Methyl Ethyl Ketone:	No data		
Liquefied Petroleum Gas	No data		

Carcinogenicity: Conclusion/Summary:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

Reproductive toxicity: Not available.

Teratogenicity: Not available

Specific target organ toxicity (single exposure): Not available Specific target organ toxicity (repeated exposure): Not available.

Aspiration hazard: Not available

Information on the likely routes of exposure: Not available.

Additional Information:

None

Section 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
n-Propyl Acetate:	LC50: 56 -64 mg/l	Pimephales promelas (fathead minnow)	96 hours
	EC50 > 318 mg/l	Daphnia (water flea)	24 hours
Butyl Acetate:	Flow thru LC50:18 mg/l	Pimephales promelas (fathead minnow)	96 hours
	Static EC50 > 44 mg/l	Daphnia (water flea)	48 hours
DPNB:	LC50: 841 mg/l	Other fish	96 hours
	EC50 > 1000 mg/l	Daphnia (water flea)	48 hours
Isopropyl Alcohol	LC50 > 1,400 mg/l	Lepomis macrochirus (Bluegill sunfish)	96 hours
	EC50 > 2,285 mg/l	Daphnia (water flea)	48 hours
Methyl Ethyl Ketone:	LC50: 3,130 - 3,320 mg/l	Pimephales promelas (fathead minnow)	96 hours
	EC50 > 520 mg/l	Daphnia (water flea)	48 hours
Liquefied Petroleum Gas	No data		

Conclusion/Summary: Not available.

12.2 Persistence and degradability

Product/ingredient name	Biodegradability
n-Propyl Acetate:	Readily biodegradable.
Butyl Acetate:	No data
DPNB:	No data
Isopropyl Alcohol	OECD Test Guideline 203 / Readily biodegradable
Methyl Ethyl Ketone:	No data
Liquefied Petroleum Gas	No data

Conclusion/Summary: Not available

12.3 Bioaccumulative potential

Product/ingredient name	Potential
n-Propyl Acetate:	Does not bioaccumulate.
Butyl Acetate:	No data
DPNB:	No data
Isopropyl Alcohol	Not likely
Methyl Ethyl Ketone:	No data
Liquefied Petroleum Gas	No data

12.4 Mobility in soil

Soil/water partition coefficient (Koc): Not available.

Mobility: Not available.

12.5 Results of PBT and vPvB assessment

PBT: Not available. **vPvB:** Not available.

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

This product does not contain chlorinated solvents or lead.

Section 13

DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal: Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Hazardous waste:

As packaged and after use, this product is considered non-acute **Ignitable waste** (code # D001).

Contaminated Packaging

Methods of disposal: Do not puncture, incinerate or compact aerosol can.

When contents are depleted continue to depress button until all gas is expelled.

Special precautions:

Federal, State, and Local laws governing disposal of material can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14

TRANSPORTATION 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:Flammable Gas Limited Quantity: Y203
IMDG	AEROSOLS, Flammable (each not exceeding 1L capacity)	2.1	UN1950	Limited Quantity: Y203

Section 15

REGULATORY INFORMATION

United States Federal Regulations: MSDS complies with the OSHA Hazard Communication Rule, 29 CFR 1910.1200.

CERCLA/Superfund, 40 CFR 117, 302: Butyl acetate RQ 5,000, Methyl Ethyl Ketone RQ 5,000

SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:

Section 302 – None of the chemicals are Section 302 hazards

Section 311/312 - (40 CFR 370): Sudden Release of Pressure Hazard, Chronic Health Hazard

CHEMICAL	C.A.S. Number	Weight %	Section 311/312
n-Propyl Acetate	109-60-4	15-25%	Acute Health Hazard; Fire Hazard
DPNB	29911-28-2	2-12%	Acute Health Hazard; Fire Hazard
Isopropyl Alcohol	67-63-0	2-12%	Acute Health Hazard; Fire Hazard
Methyl Ethyl Ketone	78-93-3	2-12%	Acute Health Hazard; Fire Hazard
Acrylic Coating	Mixture	10-20%	Fire Hazard

Section 313 – List of Toxic Chemicals (40CFC 372): This product contains the following chemicals (at level of 1% or greater) which are found on the 313 list of Toxic Chemicals.

Chemical	C.A.S.	. NUMBER	WEIGHT %
Isopropyl Alco	ohol	67-63-0	2-12%
Methyl Ethyl	Ketone	78-93-3	2-12%

Toxic Substance Control Act (TSCA): All substances are TSCA listed.

Resource Conservation and Recovery Act (RCRA 40 CFR 261) Subpart C & D: Refer to Section 13 Federal Water Pollution Control Act, Clean Water Act, 40 CFR 401.15 (formerly section 307) 40 CFR 116 (formerly section 311): This product does not contain listed chemicals

STATE REGULATIONS:

This MSDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65: This product does not contain substances on the prop 65 list.

California Safer Consumer Products list: Isopropyl Alcohol is a candidate for the SCP: Developmental Tox; Nephrotox, Urinary System; Ocular Tox; Respiratory Tox (authoritative list: OEHHA RELs)

INTERNATIONAL REGULATIONS:

Canada WHMIS: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. All substances are listed on the public Portion of the Domestic Substances List (DSL).

REACH: This product does not contain any substance listed on the Substances of Very High Concern (SvHC).

Sections 16	OTHER INFORMATION
HMIS HAZARD RATING.	

(3) Fire (1) Health (1) Reactivity (B) Protective Equipment

REVISION DATES, SECTIONS, REVISED BY:

19-Aug-13 Original Preparer: Steve Allen

02-OCT-13 Review, mkb

10-Jan-14 Changed part number, mkb 22-Mar-16 Updated to GHS, mkb

ABBREVIATIONS USED IN THIS DOCUMENT:

NE – Not Established, NA – Not Applicable, NIF – No Information Found, ND – Not Determined

ABRIDGED LIST OF REFERENCES:

Code of Federal Regulations (CFR)

The Sigma-Aldrich Library of Regulatory and Safety Data

Chemical Guide and OSHA Hazardous Communication Standard

The Environmental Protection Agency (www.epa.gov)

http://oehha.ca.gov/prop65/prop65_list

EPA list of lists: http://orise.orau.gov/emi/hazards-assessment/files/resources/epa-title3.pdf

ECHA: Candidate List of Substances of Very High Concern for Authorisation

To the best of our knowledge, the information contained herein is accurate. **However, neither ACL STATICIDE 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 which exist.