

Freeman 90-1 Aluminum Pattern Coating

Section 1 Identification

Product identifiers

Product name: Freeman 90-1 Aluminum Pattern Coating

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

Identified uses: Pattern Coating

Details of the supplier of the safety data sheet:

Freeman Manufacturing & Supply Company
1101 Moore Road, Avon, OH 44011
Phone (440) 934-1902
Email contactus@freemansupply.com

24 Hour Emergency Phone Number:
(800) 424-9300

Section 2 Hazards Identification

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Flammable Liquid, Category 1
Skin Corrosive, Category 2
Eye Corrosive, Category 2A
Mutagen, Category 1B
Carcinogen, Category 1A
Reproductive Toxin, Category 1A
Aspiration Hazard, Category 1

GHS Label elements



Signal word: Danger

Hazard statements

Extremely flammable liquid and vapor
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause genetic defects
May cause cancer
May damage fertility or the unborn child

Precautionary statements

Prevention: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.

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Section 2 Hazards Identification continued

Response: Take off contaminated clothing and wash before reuse.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

IF ON SKIN: Wash with soap and water.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation occurs: Get medical advice/attention.

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. IF exposed or concerned: Get medical advice/attention.

In case of fire: Use alcohol resistant foam, dry chemical, carbon dioxide (CO₂), dry sand for extinction

Storage: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents and container to an appropriate waste site in accordance with local and national regulations.

Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Weight Concentration %
Isopropyl alcohol	67-63-0	10.00 - 20.00
Proprietary alkyd resin	N/A	10.00 - 20.00
Xylenes (o-, m-, p-isomers)	1330-20-7	10.00 - 20.00
n-Amyl acetate	628-63-7	10.00 - 20.00
Nitrocellulose	9004-70-0	5.00 - 10.00
Methyl ethyl ketone	78-93-3	5.00 - 10.00
Toluene	108-88-3	5.00 - 10.00
Aluminum	7429-90-5	5.00 - 10.00
2-Methylbutyl acetate	624-41-9	5.00 - 10.00
Naphtha, petroleum, hydrotreated light	64742-49-0	1.00 - 5.00
Ethylbenzene	100-41-4	1.00 - 5.00
Stoddard solvent	8052-41-3	1.00 - 5.00
Diisononyl phthalate	28553-12-0	1.00 - 5.00
2-Butoxyethanol	111-76-2	1.00 - 5.00
2-Pentanone, 4-methyl	108-10-1	1.00 - 5.00

Section 4 First Aid Measures

If inhaled: Immediately supply fresh air. Keep patient in restful and comfortable position for breathing. If required provide artificial respiration, although this may be dangerous. Consult doctor if symptoms persist.

In case of skin contact: Remove contaminated clothing and shoes. Immediately wash with water and soap, rinse thoroughly. If skin irritation continues, consult a doctor.

In case of eye contact: Immediately rinse opened eye(s) for several minutes under running water. Use lukewarm water if possible. Remove contact lenses if worn. Get medical attention.

If swallowed: Immediately get medical attention. Call a poison center or physician. Rinse out mouth and then drink small amounts of water. Do not induce vomiting as this may be dangerous. Aspiration hazard if swallowed, can enter lungs and cause damage. If vomiting occurs, the head should be kept low to avoid vomit entering the lungs. Maintain an open airway.

Note to physician: Treat symptomatically

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Section 5 Fire-Fighting Measures

Extinguishing Media

Alcohol resistant foam, Fire-extinguishing powder, Carbon dioxide

Special Hazards Arising from the Substance of Mixture

Formation of toxic gases is possible during heating or in case of fire. Check flammability in section 2 of this sheet. Mixture in sealed and heated containers may cause explosion hazard.

Hazardous Combustion Products may include the following

Carbon oxides. Metal oxide(s). Nitrogen oxides. Can form explosive vapor-air mixtures. Vapors are heavier than air and may spread along floors. Vapors may travel considerable distance to source of ignition and flash back.

Advice for Firefighters

Clear fire area of unprotected personnel. Containers that are exposed to intense heat should be cooled with water. Avoid spreading burning liquid with the water used for cooling purposes. Do not enter fire area without protective gear. Fight fire from safe distance or a protected location.

Fire Equipment

Wear self-contained respiratory protective device. Dispose of fire debris and contaminated firefighting water in accordance with official regulations.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away. Keep away from ignition sources. Wear protective clothing. Keep from contacting skin or eyes. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. If any equipment is necessary, ensure that it is non-sparking and electrically protected.

Environmental precautions

Do not allow product to reach sewage system or any water source. In case of seepage into the ground inform responsible authorities. Prevent from spreading (e.g. by damming-in or oil barriers). Keep contaminated washing water and dispose of appropriately.

Methods and materials for containment and cleaning up

Ensure adequate ventilation. Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste. Do not flush with water or aqueous cleansing agents. Send for recovery or disposal in suitable receptacles according to local, State and Federal regulations.

Section 7 Handling and Storage

Precautions for safe handling

Apply proper ventilation, possibly combined with local exhaust. Do not eat, smoke or drink during use. For personal protection see Section 8. Keep away from sources of ignition. Keep material out of reach of children. Use only explosion proof equipment. Wash thoroughly after handling.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke. Protect against electrostatic charges by bonding and grounding product containers before and during material transfers. Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities

Keep away from sources of ignition - no smoking. Store in a cool, well-ventilated place. Keep in original, closed packaging. Comply with governmental regulations. Keep container tightly closed. Store out of direct sunlight, between 40°F and 90°F.

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Section 8 Exposure Controls/Personal Protection

Components with workplace control parameters

Ingredient	OSHA Exposure Limits		ACGIH Exposure Limits	
	TWA		TWA	STEL
Isopropyl alcohol	400 ppm; 980 mg/m ³		200 ppm	400 ppm
Xylenes (o-, m-, p-isomers)	100 ppm; 435 mg/m ³		100 ppm	150 ppm
n-Amyl acetate	100 ppm; 525 mg/m ³		50 ppm	100 ppm
Nitrocellulose	Not established		Not established	Not established
Methyl ethyl ketone	200 ppm; 590 mg/m ³		200 ppm	300 ppm
Toluene	200 ppm		20 ppm	Not established
Aluminum	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)		1 mg/m ³ (respirable fraction)	Not established
2-Methylbutyl acetate	Not established		50 ppm	100 ppm
Ethylbenzene	100 ppm; 435 mg/m ³		20 ppm	Not established
Stoddard solvent	500 ppm; 2900 mg/m ³		100 ppm	Not established
Diisononyl phthalate	Not established		Not established	Not established
2-Butoxyethanol	50 ppm; 240 mg/m ³		20 ppm	Not established
2-Pentanone, 4-methyl	100 ppm; 410 mg/m ³		20 ppm	75 ppm

Appropriate engineering controls

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910 .94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits. Eyewash stations and safety showers should be readily available in use and handling areas.

Personal protective equipment (PPE)

Eye/face protection: Avoid contact with eyes. Wear goggles if there is a likelihood of contact with eyes. (Consult your safety equipment supplier.) Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

Hand and skin protection: Protective gloves are required for prolonged or repeated contact. Wear resistant gloves such as natural rubber, neoprene, buna N or nitrile. An apron should be worn to avoid skin contact. (Consult your safety equipment supplier.)

Respiratory protection: In outdoor or open areas use (NIOSH/MSHA approved) mechanical filter respirator to remove solid airborne particles of overspray during spray application. In restricted ventilation areas use (NIOSH/MSHA approved) chemical-mechanical filters designed to remove a combination of particulate and gas and vapor. In confined areas use (NIOSH/MSHA approved) airline type respirators or hoods. Respiratory protection may also be necessary in any later manufacturing operations in which the product may become airborne in the form of vapor or dust.

General hygienic practices

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

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Section 9 Physical and Chemical Properties

Appearance	Silver-colored liquid
Odor	Solvent
Odor Threshold	No data available
pH	Not applicable
Melting point	Not applicable
Freezing point	Not applicable
Boiling range	>93°F (>34°C)
Flash point	0°F (-18°C)
Evaporation rate	No data available
Lower explosion limit (LEL)	1.00
Vapor pressure	29.0 mmHg
Vapor density	No data available
Specific gravity	0.959
Weight per gallon	7.89 lb./gal. at 77°F (25°C)
Water solubility	Negligible
Coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	Not determined
Viscosity (FORD4)	105 – 115 seconds
VOC (as supplied)	5.21 lb./gal.
VOC (EPA calculation)	5.41 lb./gal.

Section 10 Stability and Reactivity

Reactivity	No data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Hazardous polymerization will not occur
Conditions to avoid	Heat and open flames
Incompatible materials	Oxidizing agents, peroxides
Hazardous decomposition	Thermal decomposition can produce toxic materials: carbon monoxide, carbon dioxide, and various hydrocarbons.

Section 11 Toxicological Information

Information on toxicological effects

Dermal Toxicity (mixture)	LD50:4,694 mg/kg
Inhalation Toxicity (mixture)	LC50: 72 mg/L
Oral Toxicity (Isopropyl alcohol)	LD50: 4,697 mg/kg

Target organs

Blood, eyes, kidneys. liver, central nervous system, skin, respiratory system

Carcinogenicity

The following chemical comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA, or ACGIH.

CAS Number	Ingredient	Carcinogen Rating
100-41-4	Ethylbenzene	IARC: Possible human carcinogen, OSHA: listed
64742-49-0	Naphtha, petroleum, hydrotreated light	EU REACH: Present (P)
108-10-1	2-Pentanone, 4-methyl-	IARC: Possible human carcinogen, OSHA: listed
8052-41-3	Stoddard solvent	EU REACH: Present (P)

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Section 12 Ecological Information

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT & vPvB assessment	No data available

Section 13 Disposal Considerations

Waste treatment methods

The product should not be allowed to enter drains, water courses, or the soil. Disposal of this product and any by-products must at all times comply with local, state and Federal regulations for hazardous wastes. All entities that store, transport or handle hazardous waste must take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals.

Contaminated packaging

Waste packaging should be recycled. Care should be taken when handling emptied containers that have not been cleaned. Empty containers retain some product residues. Vapor from that residue may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers.

Section 14 Transport Information

DOT/IATA/IMDG/TDG

UN Number: UN1263
Proper Shipping Name: Paint
Hazard Class: 3
Packing Group: II

Section 15 Regulatory Information

Inventory Status

USA TSCA (Toxic Substance Control Act): All ingredients listed.

Canada DSL (Domestic Substance List): All components listed

U.S. Federal Regulations

CERCLA Hazardous Substances, Reportable Quantity (RQ):


Xylene (mixed isomers)	1330-20-7	100 lb.	10.85%
Amyl acetate	628-63-7	5,000 lb.	10.27%
Methyl ethyl ketone	78-93-3	5,000 lb.	6.73%
Toluene	108-88-3	1,000 lb.	5.00 – 10.00%
Ethylbenzene	100-41-4	1,000 lb.	2.67%
Methyl isobutyl ketone	108-10-1	5,000 lb.	1.16%

EPCRA, Section 302 – Extremely Hazardous Substances (EHS): No components listed

EPCRA, Section 313 – Toxic Release Inventory (TRI) Chemicals:

Xylene (mixed isomers), Toluene, Ethylbenzene, and Methyl isobutyl ketone

California Proposition 65

WARNING:  This product can expose you to chemicals including Toluene and Ethylbenzene, which are known to the State of California to cause cancer or birth defects or other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

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Section 16 Other Information

Disclaimer

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