

**Section 1 – MANUFACTURER INFORMATION**

<b>Manufacturer</b>	IMS Company	Emergency Phone	800-424-9300
	10373 Stafford Road	Prepared by	Product Safety Advisor
	Chagrin Falls, OH 44023-5296	Prepared/Revised	May 31, 2005
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**113717** 15% Silicone Mold Release Spray (Old part number AER1-S1512-A)  
**113712** Super 33% Silicone Mold Release Spray (Old part number AER1-S3312-A)

**Product Use:** To help plastic parts release from a metal mold in processes such as injection molding.

**Hazardous Material Information System**

<b>Health</b> ..... 1	<b>Flammability</b> ..... 4	<b>Reactivity</b> ..... 1	<b>Protection</b> ..... X
0 Normal use Material	0 Will Not Burn	0 Stable	<b>X = Consult the MSDS and your supervisor for your special workplace need</b>
<b>1 Slight Hazard (temporary)</b>	1 Possible to Burn	<b>1 Unstable if Heated</b>	
2 Health Affected (lengthy)	2 Burns if Heated	2 Violent Chemical Change	
3 Extreme Danger	3 Easily Burns	3 Shock and Heat Sensitive	
4 Severe or Fatal	<b>4 Very Easily Burns</b>	4 May Explode	

NOTE The HMIS may not be enough hazard information for this chemical in all workplaces. The HMIS system requires employee training about the system and about information in this MSDS.

**Section 2 – INGREDIENTS INFORMATION**

Chemical/Common Name	CAS-Number	%	OSHA PEL ppm	OSHA STEL ppm	ACGIH TLV ppm	ACGIH STEL ppm	OTHER ppm
1,1-Difluoroethane (HFC-152a)	75-37-6	35 to 55	NE	NE	NE	NE	1000 <sup>(1)</sup>
Dimethyl Ether	115-10-6	35 to 55	NE	NE	NE	NE	1000 <sup>(1)</sup>
Dimethylpolysiloxane <sup>(2)</sup>	63148-62-9	15 to 33	NE <sup>(3)</sup>	NE <sup>(3)</sup>	NE <sup>(3)</sup>	NE <sup>(3)</sup>	<sup>(3)</sup> 5 mg/m <sup>3</sup>

<sup>(1)</sup> Manufacturer's suggested maximum exposure limit (AEL) and WEEL (AIHA) is 1000 ppm

<sup>(2)</sup> Approved for use when molding food packaging per 21 CFR 181.28

<sup>(3)</sup> In mist applications we consider it good practice to observe a limit of 5 mg/m<sup>3</sup> TWA.

**Section 3 – HAZARDS IDENTIFICATION**

Extremely flammable aerosol. Flammable gases are heavier than air and will collect in closed areas. Acute and chronic inhalation hazard. Pressurized containers. Causes slippery floors, which can cause slips and falls.

**Emergency Overview:** Colorless to white aerosol. Toxic fumes released in fire situations. Harmful if inhaled. Can cause death if too much is breathed.

**Section 3 – HAZARDS IDENTIFICATION (continued)**

**HEALTH EFFECTS** - Acute and Chronic

**Inhalation:** HARMFUL IF INHALED. Central Nervous System (CNS) depression with anaesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness. Higher exposures to vapors may cause temporary alteration of the heart's electrical activity, with irregular pulse, palpitations, or inadequate circulation; or fatality from gross overexposure. May cause temporary lung irritation effects.

**Section 3 – HAZARDS IDENTIFICATION (continued)**

**Ingestion:** Because of the nature of the product, ingestion is unlikely.

**Eyes:** Irritation.

**Skin:** Irritation, defatting, dermatitis. NOTE: Direct contact with spray can result in frostbite.

**PRIMARY ROUTES OF ENTRY:** Inhalation, Skin, Eye

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Not fully determined: however, exposure may aggravate diseases of the central nervous system, heart rhythm or other cardiovascular diseases, or pulmonary diseases. If a person has one or more of these problems, consult medical personnel to determine what steps should be taken.

**Section 4 – FIRST AID PROCEDURES**

**Eye Contact:** Flush eyes immediately with water for at least 15 minutes. Call a physician.

**Skin Contact:** Do not apply directly to skin. Promptly flush area with water. Remove contaminated clothing and shoes. Wash exposed area with soap and water. Wash contaminated clothing before re-use.

**Inhalation:** Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, administer oxygen. Keep patient warm and quiet. **\*\*Get Medical Attention Immediately\*\***

**Ingestion:** An unlikely route of entry. However, if ingested, **\*\*Get Medical Help at once\*\*** Aspiration into lungs can cause chemical pneumonia. **\*\*Induce vomiting ONLY IF advised by physician.\*\***

**\*\*Note to Medical Personnel\*\***

Because of increased risk of disturbances of cardiac rhythm (eliciting cardiac dysrhythmias), Catecholamine drugs (Epinephrine, Adrenaline) should be used only with special caution and only in situations of emergency life support and only as a last resort.

**Section 5 – FIRE-FIGHTING MEASURES**

Flash Point (Method Used)..... <0°F                      Flammable Limits\* LEL= 3.4%      UEL=18%  
\*Flammability limits are reported for the components with the lowest LEL and highest UEL.  
Autoignition temperature ..... not determined

**Extinguishing Media:** Carbon Dioxide, Foam, Dry Chemical, Water Fog. Using water to cool exposed containers may be useful.

**Special Fire Fighting Procedures:** Firefighters should wear self-contained breathing apparatus (SCBA) with full face piece operated in positive pressure mode. See decomposition products.

At elevated temperatures (> 130° F) aerosol containers may burst, vent or rupture. Use equipment or shielding to protect personnel against bursting, rupturing or venting containers. Cooling with water streams may be helpful.

**Unusual Fire and Explosion Hazards:** The spray and its vapors are extremely flammable. Vapors are heavier than air and will accumulate in boxes, drums or other enclosed areas beneath the spray. Static-electric sparks can ignite collected vapors or the spray. Use caution where static-electric sparks can occur, including around spinnerettes and extrusion dies. Ensure enough ventilation to avoid vapor accumulation. Do not spray above enclosed areas.

**Hazardous Decomposition Products:** Not determined, however silicon oxide, carbon monoxide, carbon dioxide, hydrofluoric acid, fluorine, formaldehyde, and carbonyl fluoride would be expected.

**Section 6 – ACCIDENTAL RELEASE MEASURES**

Remove all sources of ignition. Ventilate area to reduce concentration of the components below their exposure limits. Use protective equipment consistent with the situation. Pick up the spill; store in closed containers for proper disposal. Remove residue to prevent a slippery condition developing.

**Section 7 – HANDLING AND STORAGE**

**Precautions to be Taken in Handling and Storage:** Store all industrial chemicals away from food and beverages. Store below 120°F in cool, dry area, out of direct sunlight and away from strong oxidizers. Do not puncture or burn.

**Maintenance Precautions:** Do not remove or deface label.

**Other Precautions:** Flammable vapors are heavier than air and will collect in low areas. Read and follow directions and cautions on the container label, and any accompanying literature. Product can cause slippery surfaces. Clean up spills promptly. Monitor floors for accumulation in overspray area; clean as needed.

**Section 8 – EXPOSURE CONTROLS – PERSONAL PROTECTION**

**General:** If clothing is likely to be contaminated, wear polymer-coated apron or other body covering.

**Ventilation:** Local exhaust, or mechanical or special ventilation to maintain exposure limits.

**Respiratory Protection:** Generally not required if sufficient ventilation is provided. If the exposure limits of the product or any of its components are exceeded, an approved organic vapor mask should be used (consult your safety equipment supplier).

**Protective Gloves:** If prolonged or repeated contact is likely, wear solvent-resistant gloves.

**Other Protective Equipment:** If contact with the spray is likely, wear eye protection. Monogoggles or safety glasses with side shields and a face shield will provide protection in most situations. Do not wear contact lenses.

**Other Engineering Controls:** To determine exposure levels, monitoring should be performed. Eyewash station should be available. Overspray is slippery and is difficult to fully remove from floors. Avoid overspray.

**Work Practices:** Do not use in confined or closed space. Ventilation should maintain the concentration of the product and its components below their exposure limits. We consider it good practice to limit exposure to less than the OSHA 5 mg/m<sup>3</sup> TWA oil mist limit.

**Hygienic Practices:** Avoid contact with skin and avoid breathing vapors. Do not eat, drink, or smoke in work area. Wash hands before eating, drinking, or using restroom after using this or any chemical product.

**NOTE**

This product contains methylpolysiloxanes, which can generate formaldehyde at about 300° F (150° C) and above, in atmospheres that contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard.

**Section 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Specific Gravity (Water = 1) ... < 1	Vapor Pressure (PSIG).....55 ± 10	Vapor Density (Air = 1).... >1
Evaporation Rate (Ether)..... Faster	Solubility in Water ..... Slight	
% Volatile (by weight):	% VOC by Volume:	% VOC by Weight:
- 113717 ..... 51%	- 113717..... 43%	- 113717 ..... 85%
- 113712 ..... 42%	- 113712..... 34%	- 113712 ..... 66%

**Appearance and Odor Information:** Clear to white mist with slight ethereal odor as dispensed from the aerosol package.

**Section 10 – STABILITY AND REACTIVITY**

**Incompatibility (Materials to Avoid):** Strong oxidizers, strong caustics, reactive metals such as sodium, potassium, zinc, magnesium, aluminum, alkaline earth metals, ozone, fluorine, chromic anhydride, and beryllium.

**Will Hazardous Polymerization Occur?** No      **Conditions to Avoid for Polymerization:** N/A

**Is the Product Stable?** Yes      **Conditions to Avoid for Stability:** Avoid heat sufficient to burst container (see special fire fighting procedure above) and spraying into flame or onto red hot surfaces, which may cause decomposition.

**Section 11 – TOXICOLOGICAL INFORMATION**

COMPONENT	CARCINOGENICITY			ORAL TOXICITY	INHALATION TOXICITY
	IARC	NTP	ACGIH		
1,1-Difluoroethane(HFC-152a)	no	no	no	ALD >1500 mg/kg (rat)	ALC 383,000 ppm (4hr/rat)
Dimethyl Ether	no	no	no	NA	164,000 ppm (4hr/rat)
Dimethylpolysiloxane	no	no	no	not available	not available

**Section 12 – ECOLOGICAL INFORMATION**

Not an ozone-depleting substance.

**Section 13 – DISPOSAL CONSIDERATIONS**

Consult Federal, State and Local regulations. Do not puncture or burn containers. Give empty, leaking, or full containers to a disposal service equipped to handle and dispose of aerosol (pressurized) containers.

**Section 14 – TRANSPORT INFORMATION**

<b>Ground (US DOT)</b>	Consumer Commodity, Class ORM-D, ERG 126;	<b>OR</b>	Aerosols (Limited Quantity), Class 2.1, ERG 126
<b>Air (IATA) Vessel</b>	Consumer Commodity, Class 9, UN/ID No. ID 8000, Packing 1900, Authorization: Limited Quantity Aerosols (Limited Quantity), Class 2, UN No 1950		

**Section 15 – REGULATORY INFORMATION**

Ozone-Depleting? .....no      FDA 21 CFR 181.28 ..... yes      USDA H-1, -2 ..... H-1

COMPONENT	CAS#	SARA 313	California PROP 65
None		none	none

**ADDITIONAL COMMENTS**

**CAUTION Intentional misuse of this chemical product, as with any industrial chemical, in contact with the body can be harmful or fatal. This includes such things as deliberately breathing, placing in mouth, swallowing, placing on skin, or any other body contact, or repeated, or continuous contact.**

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