

**Section 1 – PRODUCT AND COMPANY INFORMATION**

<b>Manufacturer</b>	IMS Company 10373 Stafford Road Chagrin Falls, OH 44023-5296	Emergency Phone Office Phone Prepared by Prepared/Revised E-mail	800-424-9300 440-543-1615 Product Safety Advisor January 18 2002 <a href="mailto:sales@imscompany.com">sales@imscompany.com</a>
	WEB <a href="http://imscompany.com">imscompany.com</a>	Container	Former Item Numbers
<b>Item Numbers</b>			
123491 Economy Silicone-50 Mold Release (3% silicone)		10 oz net (16 oz can)	AER0015 & 119251
127365 Economy Silicone-55L Mold Release (5% silicone)		10 oz net (16 oz can)	None

**Product use** Designed as a hand held, very portable, aerosol can spray, to achieve easier ejection of parts from any mold type such as injection, compression, composite, etc. and any mold material such as ferrous, non-ferrous, and composite molds. FDA approved and USDA-1rated.

**Hazardous Material Information System**

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

\* Chronic (Accumulates)

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	%	PEL-OSHA	TLV-ACGIH
1 Isohexane, Isomers <sup>(2)</sup>	107-83-5	40 to 60	500 ppm	500 ppm
2 Liquefied Petroleum Gas	68476-85-7	30 to 50	1000 ppm	1000 ppm
3 Release Agent – Silicone <sup>(4)</sup>	63148-62-9	0.1 to 10	<sup>(1)</sup>	<sup>(1)</sup>
4 Cyclopentane	287-92-3	0.1 to 10	600 ppm	600 ppm
5 N-Hexane <sup>(3)</sup>	110-54-3	0.1 to 10	50 ppm	50 ppm

<sup>(1)</sup> None Established, however we recommend that exposure be limited to the OSHA, oil mist exposure, limit of 5mg/m<sup>3</sup>.

<sup>(2)</sup> NOTICE This ingredient may contain trace contamination of a chemical known to the State of California to cause cancer, reproductive and other birth harm.

<sup>(3)</sup> Subject to SARA Title III Sec. 313 reporting requirements

<sup>(4)</sup> FDA approved per 21 CFR 174.5 (2) (d) Substances that under conditions of good manufacturing practice may be safely used as components of articles that contact food. Rated USDA H-1 for use in machinery having incidental contact with food.

**Section 3 – HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW** Product is a colorless, compressed gas and liquid. May cause chemical and mechanical eye, skin, and respiratory tract irritation. For large spills, wear appropriate personal protective equipment. Dike to prevent spread. Collect released product by adsorption.

This product contains methylpolysiloxanes, which can generate formaldehyde at approximately 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.

**CAUTION** Slippery; can cause falls if walked on. Inhalation of mist or fumes, evolved upon heating of the release agent, most likely to be irritating to respiratory tract. The solvents and propellant evaporate quickly leaving the silicone release agent as a residue. To use safely, prevent overspray and prepare to control and prevent spills.

**HEALTH EFFECTS** (Acute and Chronic)

**Nose** FATAL OR HARMFUL IF INHALED for the product as a whole. Overexposure can cause CNS depression with anesthetic 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.

**Mouth** FATAL OR HARMFUL IF SWALLOWED for the product as a whole. Because of the aerosol nature of the product, ingestion is unlikely. Small amounts of the release agent by fingers should not injure and large amounts could cause digestive discomfort.

**Eyes** Irritation

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

**Chronic** The product is not known to be a carcinogen or suspected carcinogen.

**ROUTE OF ENTRY** Inhalation, eyes, skin.

**TARGET ORGANS, 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 MEASURES

**NOTE** If an irritation persists, get medical help.

**Breathing** Remove to fresh air. Keep person warm and quiet. Apply artificial respiration if breathing has stopped. If breathing is difficult, give oxygen. **\*\* Get Medical Help at once \*\***

**Eating** Not expected to be a 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 \*\*** May act as a laxative. Small amounts should be rinsed out until taste of product is gone.

**Eye Contact** Flush thoroughly with water for at least 15 minutes, consult a physician.

**Skin Contact** Do not apply directly to skin! If accidentally discharged onto skin, wash with soap and water. Launder contaminated clothes before re-use.

### Section 5 – FIRE FIGHTING MEASURES

Flash Point (estimated) .....< 0° F (<-18° C) Flammable Limits .....LEL = 1% UEL = 18%

Autoignition temperature.....ND

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE

**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, protective clothing, and avoid skin contact, due to thermal decomposition products. Use equipment or shielding to protect personnel against rupturing or venting containers. Cooling containers with water streams may be helpful. See decomposition products.

At elevated temperatures (> 120° F/>49° C) aerosol containers may vent or rupture.

**Unusual Fire and Explosion Hazards** Static-electric sparks have been known to ignite accumulated vapors of flammable propellant mixtures. Use caution where static-electric sparks can occur. Ensure enough ventilation to avoid vapor accumulation, especially when spraying where there is an enclosure that would otherwise let vapors accumulate. Vapors are heavier than air, and might collect below the spray area, or might travel long distances along the floor and become ignited elsewhere.

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

### Section 6 – ACCIDENTAL RELEASE MEASURES

**Steps to be Taken in Case Material is Released or Spilled** Remove 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 on absorbent material; store in closed containers for proper disposal. Remove residue to prevent a slippery condition developing. It is slippery on walkways; use a light solvent to clean area, to remove trace residues, but do not let contaminated liquid get to drains, sewers, public water source, or rainfall. Do not puncture or burn containers.

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

### Section 7 – HANDLING AND STORAGE

**Precautions to be Taken in Handling and Storage** Store in cool, dry area out of direct sunlight. Do not puncture, burn, or store above 120° F (49° C).

**SPRAY APPLICATIONS** Where exposure exceeds the TLV, use a NIOSH/MSHA approved respirator, goggles, rubber gloves, and protective clothing.

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

**Handling** Thoroughly wash after handling, and before eating, drinking, or using tobacco products.

**Other Precautions** Read and follow directions and cautions on the container label, and any accompanying literature. Overspray could make floors slippery. Use housekeeping and work rules to prevent slipping. Decomposition vapor is heavier than air and can collect in low areas. Clean up spills promptly. Monitor floors for accumulation in overspray area; clean as needed.

### Section 8 – EXPOSURE CONTROLS – PERSONAL PROTECTION

**GENERAL** Usually local exhaust is not required. General room ventilation may be adequate to maintain components below TLV/PEL, if handled at ambient temperatures, or in covered equipment. Local exhaust ventilation or other engineering controls may be required, if ambient temperatures are exceeded, or if used in operations without good air circulation.

Maintain enough ventilation to prevent fire/flash hazard from local accumulation of vapors, especially near sources of high heat, electric arcs or static-electric sparks. NOTE vapors are heavier than air and could collect below the area where the product is sprayed, or could travel long distances along floor and be ignited elsewhere.

Polymeric coated apron or other body covering is recommended where there is a possibility of regular work clothing becoming contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.

**Respiratory Protection** Generally not required if sufficient ventilation is provided. If the exposure limit of the product or any of its components is exceeded, an approved organic vapor mask should be used (consult your safety equipment supplier). If exposures exceed limits by less than a factor of ten, use a NIOSH approved, ½ mask facepiece respirator for particulate matter. If exposures exceed 10 times the recommended limits, consult a professional industrial hygienist or your respiratory protective equipment supplier for selection of the proper equipment.

**Protective Gloves** Where prolonged or repeated contact with the spray mist or the deposited product is likely, use polymeric materials, neoprene, etc. for personal protective equipment, gloves and clothing.

**Other Protective Equipment** If contact with the spray is likely, eye protection is recommended. Chemical Monogoggles or safety glasses with side shields, and a face shield will provide protection in most situations.

**Other Engineering Controls** To determine exposure levels, monitoring should be performed. Eye bath and safety shower station should be available. To determine exposure levels, monitoring should be performed. Monitor for formaldehyde if the product will be used at temperatures above 300° F and exposed to air.

**Work Practices** Do not use in confined or closed space. Use enough ventilation to maintain the concentration of the product and its components below their exposure limits. Avoid long-term or repeated contact. Stained clothing should be removed and laundered before re-use. Sudden release of hot vapor or mist from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under vacuum, may result in decomposition without obvious source of heat. Any use of this product in elevated-temperature processes must be thoroughly evaluated to establish and maintain safe operating conditions.

**Hygienic Practices** As with using any chemical product, avoid contact with skin and avoid breathing vapors, do not eat, drink, or smoke in work area; wash hands prior to eating, drinking or using restroom after handling or using. Any chemical product can contaminate tobacco, causing illness (from inhaling components heated in tobacco smoke or ingested from handling tobacco and/or food products).

### Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point .....	N/A	Specific Gravity (Water=1) .....	< 1
Vapor Pressure at 77° F (25° C) .....	60 ± 10	Percent Volatile by Volume (%).....	> 95
Vapor Density (Air=1).....	> 1	Evaporation Rate (ether=1) .....	Faster
VOC .....	95%	Pour point .....	ND
Solubility in Water.....	NIL	pH .....	ND
Melting point.....	ND	Odor threshold.....	ND
Viscosity .....	NA		

**Appearance and Odor Information** Clear mist with slight ethereal odor as dispensed from the aerosol package. CONTENTS UNDER PRESSURE. Do not puncture or burn container.

### Section 10 – STABILITY AND REACTIVITY

**Incompatibility (reactivity, materials to avoid)** Strong oxidizers, strong caustics, reactive metals such as sodium, potassium, zinc, magnesium, aluminum.

**Product Chemically Stable?** Yes

**Conditions to keep 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 and/or ignition.

**Decomposition Products** Not fully determined; however, silicon oxides, carbon monoxide, carbon dioxide, hydrofluoric acid, fluorine, carbonyl fluoride (formaldehyde), and possibly incompletely burned hydrocarbon products would be expected. Product is stable to 575° F (302° C).

**Will Hazardous Polymerization Occur?** Product is stable. Hazardous polymerization will not occur.

**Sensitivity to mechanical impact** None

**Sensitivity to static discharge (ESD)** With all spray procedures, potential to being a source of ESD and being ignited from ESD.

**Section 11 – TOXICOLOGICAL INFORMATION**

**LD<sub>50</sub>, LC<sub>50</sub>** NA  
**Reproductive Toxicity** NA  
**Irritancy, sensitivity** See other sections, 3 - Hazard Identification, 4 - First Aid, and 15 – Regulatory Information.

**Section 12 – ECOLOGICAL INFORMATION**

The product is not expected to present an environmental hazard. Ecological or environmental effects not known

**Section 13 – DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods** The dried residue, remaining material does not exhibit any characteristics of a hazardous waste. Product may be mixed with absorbent materials to point of being a non-liquid and disposed in normal trash, unless local regulations prohibit. Give leaking, or full, containers to a disposal service equipped to handle such residue containers. Observe all warnings and precautions listed for the product. As prepared, product as a whole is considered hazardous. Observe proper safety and handling. Do not allow empty containers to be used for any purpose except to store and ship product. Recovered liquids may be re-used if compatible with users processes. Contaminated material may be disposed of in a permitted waste management facility suitable for the contamination. Do not puncture or burn containers. Reclamation/recycling is encouraged where possible. Where reclamation is not practical, this product may be incinerated where permitted by Federal, State, County/Provincial, and Local regulations. Never dispose by means of public sewers or drainage.

**Section 14 – TRANSPORT INFORMATION**

**Ground (US DOT).....** Consumer Commodity OR Aerosols (Limited Quantity)  
**Class** ORM-D 2.1  
**ERG** 126 126

**Air (IATA).....** Consumer commodity  
**Class** 9 (Label Diamond required)  
**UN/ID No.** ID 8000  
**Packing** 1900  
**Authorization** Limited Quantity

**Vessel.....** Aerosols (Limited Quantity)  
**Class** 2.1  
**UN No** 1950  
**EmS No.** 2-13  
**ERG** 126

**Section 15 – REGULATORY INFORMATION**

CFC, HCFC, HFC, ODS	N
EPA - CAA, CWA	N
EU risk phrase #'s	N
FDA-21 CFR 174.5 (2) (d)	Y
IDLH	N
OSHA listed	Y
PROP 65 listed	Y
RCRA listed	N
SARA 313 list	Y
TSCA listed	Y
USDA H-1, -2	H-1

This product has been classified in accordance with hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**Section 16 – OTHER INFORMATION**

**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.**

IMS provides this information in good faith, but makes no representation as to its comprehensiveness or its accuracy. This document is offered as a guide to a trained person, for appropriate precautionary handling. Persons using the product and receiving the information must exercise independent judgment in determining the appropriateness of the use and the safety information for their particular purpose. IMS MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THIS INFORMATION OR TO THE PRODUCT. ACCORDINGLY, IMS WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE ON THIS INFORMATION.

CAS	Chemical Abstract Service	NIL	Not measurable, significant, noticeable, or an affect
GRAS	Generally Recognized As Safe by FDA rule or listing	NTP	National Toxicology Program
H-1, -2	USDA, plant process chemicals that do not touch food stuff	OSHA	Occupational Safety and Health Administration
IARC	International Agency for Research of Cancer	ppm	parts per million
IDLH	Immediately Dangerous to Life or Health, exposure rate/volume	USDA	U S Department of Agriculture
mg/m <sup>3</sup>	milligrams per Cubic Meter	Y	Yes, Does Exists, Is Listed,
N	No, None, Not listed, Not Known		