

## **MATERIAL SAFETY DATA SHEET**

### **1. Product and Company Identification**

**Product Name:** Dry Spray A4 with PTFE  
**Product Code:** 131399  
**Product Type:** Aerosol  
**Product Use:** Mold Release

<b>Manufacturer:</b> IMS Company	Emergency Phone	800-424-9300
<b>Address:</b> 10373 Stafford Road	Prepared by	Product Safety Advisor
Chagrin Falls, OH 44023-5296	Prepared/Revised	September 21, 2011
WEB <a href="http://www.imscompany.com">www.imscompany.com</a>	E-mail	<a href="mailto:sales@imscompany.com">sales@imscompany.com</a>

**NOTE:** The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. We provide this information as guidance for providing personal protection to your employees. The user has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. The user must meet all applicable safety and health standards. We provide this information as guidance for providing personal protection to your employees.

### **2. Composition / Information on Ingredients**

<b>Ingredients</b>	<b>CAS #</b>	<b>Percent</b>	<b>Exposure Limits</b>
1,1,-Difluoroethane (HFC-152a)	75-37-6	30-40 %	1000 ppm 8 hour TWA (1)
Dimethyl Ether	115-10-6	30-40 %	1000 ppm 8 hour TWA (1)
Methyl-2-Pentane	107-83-5	8-14 %	OSHA (TWA) 500 ppm ACGIH (TWA) 500 ppm
Methyl-3-Pentane	96-14-0	4-5 %	OSHA (TWA) 500 ppm ACGIH (TWA) 500 ppm
Dimethyl-2,3=Butane	79-29-8	4-5 %	OSHA (TWA) 500 ppm ACGIH (TWA) 500 ppm
Dimethyl-2,2-Butane	75-83-2	1-4 %	OSHA (TWA) 500 ppm ACGIH (TWA) 500 ppm
N-Heptane	110-54-3	< 1 %	OSHA (TWA) 500 ppm ACGIH ( TWA) 50 ppm
Isopropyl Alcohol	67-63-0	< 2 %	OSHA (PEL) 400 ppm ACGIH (TLV) 200 ppm
Poly – TFE, Methylcyclohexyl	65530-85-0	< 1 %	NE
Polyterafluoroethylene	9002-84-0	< 2 %	10 mm/m3 8 hour TWA 5 mg/m3 respirable dust (1)

- (1) Supplier Acceptable exposure limit.

### 3. Hazards Identification

#### **CAUTION! FLAMMABLE, CONTENTS UNDER PRESSURE**

**Odor/Appearance:** White film dries to powder..

#### **Potential health effects**

**Routes of exposure:** Skin, eyes, inhalation, ingestion.

**Eye Contact:**

May cause immediate or delayed irritation. Irritation may show up as redness and/or swelling.  
May cause corneal damage.

**Skin Contact:**

Repeated or prolonged contact with skin may produce redness, irritation and/or dryness. May cause or aggravate dermatitis or other existing skin condition.

**Inhalation:**

Inhalation of vapors or spray mist may cause headaches, and/or nose and throat irritation.

**Ingestion:**

Ingestion may cause irritation to the mouth, esophagus, and/or stomach. Liquid ingestion may cause Frostbite. Aspiration hazard. Do not induce vomiting.

**Signs or Overexposure:**

Signs and symptoms of exposure to this material through breathing, swallowing, and /or passage of a material through the skin may include; stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness).

**Target Organs:**

Prolonged and repeated exposure to n-hexane may cause peripheral neuropathy by damaging peripheral nerve tissue ( that of the arms and legs) and result in muscular weakness and loss of sensation. Prolonged and repeated inhalation of high levels of mixed isomers of hexane resulted in kidney damage in male rats. The effects observed are the same as those seen in male rats exposed to other hydrocarbons. The mechanism by which these chemicals cause the characteristic kidney toxicity is unique to the male rat and the kidney effects are not expected to occur in man,. Over exposure to this material (or its components) has been suggested as cause of the following effects in laboratory animals: mild, reversible liver effects testis damage, lung damage, Overexposure to this material (or its components) has suggested as a cause of the following effects: visual impairment, central nervous system effects.

### 4. First Aid Measures

**Eye Contact:**

Flush with warm water for 15 minutes. Seek medical attention.

**Skin Contact:**

Wash with soap and water. Remove any contaminated clothing and launder before reusing. If irritation persists, seek medical attention.

**Inhalation:**

Remove exposed individual to fresh air, protecting yourself. Restore breathing if necessary. Contact a physician.

**Ingestion:**

Immediately give the person two large glasses of water. Do not induce vomiting. Get medical attention immediately. **DO NOT GIVE AN UNCONCIOUS OR CONVULSING PERSON ANYTHING BY MOUTH!**

## 5. Fire Fighting Measures

**Flash Point:** Flash point of propellant <0 degrees F.

**Flammable limits in air, % by volume:**

**Upper:** 18 % (VOL.) Gas in air (propellant portion)  
**Lower:** 3.4 % (VOL.) Gas in air (propellant portion)

**Extinguishing Media:**

Dry chemical, carbon dioxide, halon, or foam is recommended. Water spray may be used to cool containers or structures. Halon may decompose into toxic materials and carbon dioxide will displace oxygen, take proper precautions when using these materials.

**Unusual Fire & Explosion Hazards:**

This material may be ignited by extreme heat, sparks, flames or other ignition sources (static electricity). Vapors are heavier than air and will collect in low areas (sewers) or travel considerable distances. If containers are not cooled in a fire, they may rupture and ignite.

**Special Fire Fighting Procedures:**

At elevated temperatures (over 130F) aerosol container may burst, vent or rupture; use equipment or shielding to protect personnel. Cooling exposed containers with streams of water may be helpful. Emergency responders should wear self-contained breathing apparatus. Wear other protective gear as conditions warrant. Keep unauthorized people out and try to contain spills or leaks if it can be done safely. Material will float on water, avoid spreading the fire.

## 6. Accidental Release Measures

**Spill or Leak Instructions**

Contain spill with dikes of soil or nonflammable absorbent to minimize contaminated area. Avoid run-off into storm sewers and ditches leading to waterways. If required, notify state and local authorities. Place leaking containers in well-ventilated area. Clean up small spills by using a nonflammable absorbent or flushing sparingly with water. Contain larger spills with nonflammable diking or absorbent. Clean up by vacuuming or sweeping.

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Assess the spill situation, as the spill may not evolve large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until spilled product is removed.

## 7. Handling and Storage

### Handling:

Store below 120°F in cool, dry area, out of direct sunlight and away from strong oxidizers. Do not puncture or burst. Use in accordance with good work place practices. Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Decontaminate soiled clothing thoroughly before re-use. Destroy contaminated leather clothing.

Empty containers may contain residues from the product. Treat empty containers with the same precautions as the material last contained. Do not cut, weld or apply heat to empty containers Do not incinerate

### Storage:

Store in a cool, dry area, away form heat or direct sunlight. Keep containers closed when not in use. Do not store with incompatible materials

## 8. Exposure Controls / Personal Protection

### Protective Equipment:

Use synthetic gloves if necessary to prevent excessive skin contact. Do not wear contacts and always use ANSI approved safety glasses or splash shield.

### Engineering Controls:

General or dilution ventilation is frequently sufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Use a NIOSH approved respirator if ventilation is not adequate to maintain exposures below TLV levels.

### Respiratory Protection:

Use adequate ventilation to maintain exposure limits. If the exposure limits of the products or any of its components is exceeded, an approved organic vapor mask should be used (consult your safety equipment supplier). Above 1000 ppm, an approved self-contained breathing apparatus or airline respirator with full face-piece is required

### Other Suggested Equipment:

Eye wash station and emergency showers should be available. Spill containment equipment should be available.

### Discretion Advised:

We take no responsibility for determining what measures are required for personal protection in any specific application. The general information should be used with discretion.

### Exposure guidelines:

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(1) Supplier Acceptable exposure limit.

## 9. Physical and Chemical Properties

**Boiling Point:** NA

**Vapor Density:** >1(Air=1)

**Odor/Appearance:** Clear mist as dispensed from aerosol can.

**Evaporation Rate:** Ether = 1 Slower

**Specific Gravity:** <1

**Water Solubility:** Negligible

## 10. Stability and Reactivity

**Stability:** Stable

**Conditions to Avoid:** Heat, spark, and open flame

**Incompatibility:** Strong-Oxidizing Agents

**Hazardous Decomposition:** Combustion will produce Carbon Monoxide, Carbon Dioxide and nitrogen-oxygen compounds.

**Hazardous Polymerization:** Will not occur

## 11. Toxicological Information

### Acute oral toxicity

N-HEXANE

LD 50 Rat: 25 g/kg

Isopropyl Alcohol

LD 50 4,700 mg/kg in rats

### Acute inhalation toxicity

METHYL-2-PENTANE

LC 50 Rat: > 3125 ppm, 4 h

N-HEXANE

LC 50 Rat: 48000 ppm, 4 h

Isopropyl Alcohol

4 hour LC 50 16,000 ppm in rats

### Acute dermal toxicity

N-HEXANE

LD 50 Rabbit: > 1.3 g/kg

Isopropyl Alcohol

LD 50 12,900 mg/kg in rabbits

**Dimethyl Ether** **115-10-6**  
Inhalation 4 hour LC50: 164,000 ppm in rats  
**HFC-152a** **75-37-6**  
Oral ALD >1500 mg/kg in rats  
Inhalation ALC 4 hour 383,000 ppm in rats

## 12. Ecological Information

N/A

## 13. Disposal Considerations

Do not puncture or burn containers. Give empty, leaking, or full containers to disposal service equipped to handle and dispose of aerosol (pressurized) containers. Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste. See Section 9 - Physical and Chemical Properties.

## 14. Transport Information

Ground (US DOT) Consumer Commodity  
Class ORM-D, ERG 126

Or

Aerosols (limited quantity),  
Class 2.1, ERG 126

AIR (IATA)

Aerosols (limited quantity),  
Class 2.1, ERG 126, UN No. 1950

Vessel

Aerosol (Limited Quantity), Class 2.1, UN No 1950

## 15. Regulatory Information

### Environmental Regulations

#### SARA 302/304:

None

#### SARA 311/312:

Immediate ( x ) Delayed ( x ) Fire ( x ) Reactive ( ) Sudden Release of Pressure ( x )

**Section 313**

n-hexane	110-54-3	1-1.5%
Zinc Stearate	557-05-01	4%

**California Prop. 65:**

n-hexane 110-54-3

WARNING: This product contains a chemical known in the State of California to cause cancer. BENZENE

WARNING: this product contains a chemical known in the State of California to Cause birth defects or other reproductive harm: BENZENE

All the chemicals used in this product are TSCA listed.  
Check with your local regulators to be sure all local regulations are met.

**16. Other Information**

**Hazard ratings** This information is intended solely for the use of individuals trained in the NFPA and/or HMIS systems.

**NFPA:** Level 2 Aerosol

**HMIS:** Health: 2 Flammability: 4 Reactivity: 0

RATING: 4-EXTREME 3-HIGH 2-MODERATE 1-SLIGHT 0-INSIGNIFICANT

**Note:**

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. We make no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. This material may be released from gas, liquid, or solid materials made directly or indirectly from it. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards. Possession of an MSDS does not indicate that the possessor of the MSDS was a purchaser or user of the subject product.