

Dry Film 4A

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Dry Film 4A
SDS Number: IMS 06-715-12
Product Code: 131410
Revision Date: 11/17/2022
Version: 2
Product Type: Aerosol Mold Release
Supplier Details: IMS Company
 10373 Stafford Rd.
 Chagrin Falls, OH 44023-5296
Phone: 1-440-543-1615
Emergency: Chemtel 1-800-255-3924

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 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Physical, Flammable Aerosols, 2
 Physical, Gases Under Pressure, Liquefied Gas
 Health, Aspiration hazard, 1
 Health, Skin corrosion/irritation, 2
 Health, Serious Eye Damage/Eye Irritation, 2 A
 Health, Specific target organ toxicity - Single exposure, 3
 Health, Reproductive toxicity, 2

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H223 - Flammable aerosol
 H280 - Contains gas under pressure; may explode if heated
 H304 - May be fatal if swallowed and enters airways
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H336 - May cause drowsiness or dizziness
 H361 - Suspected of damaging fertility or the unborn child (state specific effect if known)(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

GHS Precautionary Statements:

P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P210 - Keep away from heat/sparks/open flames/hot surfaces.
 P211 - Do not spray on an open flame or other ignition source.
 P251 - Do not pierce or burn, even after use.
 P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

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P264 - Wash skin thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313 - IF exposed or concerned: Get medical advice/ attention.
P331 - Do NOT induce vomiting.
P332 + P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before reuse.
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 - Collect spillage.
P403 - Store in a well-ventilated place.
P405 - Store locked up.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 - Dispose of contents/container in accordance with local/regional regulations.

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COMPOSITION/INFORMATION OF INGREDIENTS

CAS#	Chemical %	Chemical Ingredients:
		Chemical Name:
107-83-5	20-30%	Isohexane
287-92-3	0-3%	Cyclopentane
110-54-3	0-2%	n-Hexane
75-37-6	30-40%	1,1-Difluoroethane, R152a
115-10-6	30-40%	Dimethyl ether
67-63-0	<2%	Isopropanol
9002-84-0	<2%	Polytetrafluoroethylene

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FIRST AID MEASURES

Inhalation: Remove exposed individual to fresh air, protecting yourself. Restore breathing if necessary. Contact a physician.
Skin Contact: Wash with soap and water. Remove any contaminated clothing and launder before reusing. If irritation persists, seek medical attention.
Eye Contact: Flush with warm water for 15 minutes. Seek medical attention.
Ingestion: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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FIRE FIGHTING MEASURES

Flash Point: Flash point of propellant <0 degrees F.
LEL: Lower: 3.4 % (VOL.) Gas in air (propellant portion)
UEL: Upper: 18 % (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.

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ACCIDENTAL RELEASE MEASURES

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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.

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HANDLING AND STORAGE

Handling Precautions:

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 Requirements:

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

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EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

Personal Protective Equipment:

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.

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 exposure levels 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.

Isohexane cas#:(107-83-5) [20-30%]

Components with workplace control parameters

TWA	500 ppm	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	1,800 mg/m3	

STEL	1,000 ppm	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	3,600 mg/m3	

TWA	500 ppm	USA. ACGIH Threshold Limit Values (TLV)
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1,760 mg/m3

STEL 1,000 ppm USA. ACGIH Threshold Limit Values (TLV)
3,500 mg/m3

TWA 500 ppm USA. ACGIH Threshold Limit Values (TLV)
Eye & Upper Respiratory Tract irritation Central Nervous System impairment

STEL 1,000 ppm USA. ACGIH Threshold Limit Values (TLV)
Eye & Upper Respiratory Tract irritation Central Nervous System impairment

TWA 500 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -
1,800 mg/m3 1910.1000

STEL 1,000 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -
3,600 mg/m3 1910.1000

TWA 100 ppm USA. NIOSH Recommended Exposure Limits
350 mg/m3
Also see specific listing for n-Hexane.

C 510 ppm USA. NIOSH Recommended Exposure Limits
1,800 mg/m3
Also see specific listing for n-Hexane. 15 minute ceiling value

Cyclopentane cas#:(287-92-3) [0-3%]

Components with workplace control parameters

TWA 600 ppm USA. ACGIH Threshold Limit Values (TLV)
Central Nervous System impairment Upper Respiratory Tract irritation Skin & eye irritation

TWA 600 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -
1,720 mg/m3 1910.1000

TWA 600 ppm USA. NIOSH Recommended Exposure Limits
1,720 mg/m3

n-Hexane cas#:(110-54-3) [0-2%]

Components with workplace control parameters

TWA 50 ppm USA. ACGIH Threshold Limit Values
(TLV)

Central Nervous System impairment

Eye irritation

Peripheral neuropathy

Substances for which there is a Biological Exposure Index or Indices
(see BEI section)

Danger of cutaneous absorption

TWA 50 ppm USA. NIOSH Recommended
180 mg/m3 Exposure Limits

TWA 500 ppm USA. Occupational Exposure Limits
1,800 mg/m3 (OSHA) - Table Z-1 Limits for Air
Contaminants

The value in mg/m3 is approximate.

TWA 50 ppm USA. OSHA - TABLE Z-1 Limits for
180 mg/m3 Air Contaminants - 1910.1000

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1,1-Difluoroethane, R152a cas#:(75-37-6) [30-40%]

Components with workplace control parameters

TWA 1,000 ppm USA. Workplace Environmental Exposure Levels
(WEEL)

Dimethyl ether cas#:(115-10-6) [30-40%]

Components with workplace control parameters

TWA 1,000 ppm USA. Workplace Environmental Exposure Levels
(WEEL)

Isopropanol cas#:(67-63-0) [<2%]

Components with workplace control parameters

TWA 200 ppm USA. ACGIH Threshold Limit Values
(TLV)

Eye & Upper Respiratory Tract irritation
Central Nervous System impairment
Not classifiable as a human carcinogen

STEL 400 ppm USA. ACGIH Threshold Limit Values
(TLV)

Eye & Upper Respiratory Tract irritation
Central Nervous System impairment
Not classifiable as a human carcinogen

TWA 400 ppm USA. OSHA - TABLE Z-1 Limits for
980 mg/m3 Air Contaminants - 1910.1000

STEL 500 ppm USA. OSHA - TABLE Z-1 Limits for
1,225 mg/m3 Air Contaminants - 1910.1000

TWA 400 ppm USA. Occupational Exposure Limits
980 mg/m3 (OSHA) - Table Z-1 Limits for Air
Contaminants

The value in mg/m3 is approximate.

TWA 400 ppm USA. NIOSH Recommended
980 mg/m3 Exposure Limits

ST 500 ppm USA. NIOSH Recommended
1,225 mg/m3 Exposure Limits

Polytetrafluoroethylene cas#:(9002-84-0) [<2%]

10 mm/m3 8 hour TWA
5 mg/m3 respirable dust (1)
(1) Supplier Acceptable Exposure Limit.

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PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear Aerosol

Viscosity: NE

Odor:

Negligible

Safety Data Sheet

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Boiling Point:	NE	Solubility:	Negligible
Flammability:	Flammable	Freezing/Melting Pt.:	NE
Vapor Pressure:	>30 psi	Flash Point:	Flash point of propellant < 0°F
pH:	NE	Vapor Density:	>1 Air = 1
Evap. Rate:	Ether = 1 Slower	Auto-Ignition Temp:	NE
Decomp Temp:	NE	UFL/LFL:	Upper: 18 % (VOL.) Gas in air (propellant portion) Lower: 3.4 % (VOL.) Gas in air (propellant portion)

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STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions to Avoid:	Heat, spark, and open flame.
Materials to Avoid:	Strong Oxidizing Agents.
Hazardous Decomposition:	Combustion will produce Carbon Monoxide, Carbon Dioxide, and nitrogen-oxygen compounds.
Hazardous Polymerization:	Will not occur.

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TOXICOLOGICAL INFORMATION

Isohexane cas#:(107-83-5) [20-30%]

Information on toxicological effects

Acute toxicity:

Oral LD50 no data available

Inhalation LC50

Dermal LD50

Other information on acute toxicity

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

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: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure (Globally Harmonized System):

no data available

Aspiration hazard: May be fatal if swallowed and enters airways.

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Potential health effects: Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness. Ingestion May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information:

RTECS: SA2985000

Cyclopentane cas#:(287-92-3) [0-3%]

Information on toxicological effects

Acute toxicity:

Oral LD50 no data available

Inhalation LC50

Dermal LD50

Other information on acute toxicity

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

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: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: Central nervous system depression, Skin irritation, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information:

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RTECS: GY2390000

n-Hexane cas#:(110-54-3) [0-2%]

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - 25,000 mg/kg

LC50 Inhalation - rat - 4 h - 48000 ppm

Dermal: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: Eyes - rabbit Result: Mild eye irritation

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

Carcinogenicity - rat - Inhalation:

Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic Effects: Testicular tumors.

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: no data available

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected human reproductive toxicant
Suspected of damaging fertility.

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure: Ingestion - May cause damage to organs through prolonged or repeated exposure. -
Nervous system

Aspiration hazard: May be fatal if swallowed and enters airways.

Additional Information:

RTECS: MN9275000

Prolonged or repeated contact with skin may cause: defatting, Dermatitis, Contact with eyes can cause: Redness, Blurred vision, Provokes tears., Effects due to ingestion may include: Gastrointestinal discomfort, Central nervous system depression, Lung irritation, chest pain, pulmonary edema, giddiness, slowed reaction time, slurred speech, Headache, Dizziness, Drowsiness, Unconsciousness
Testes. - Irregularities - Based on Human Evidence

1,1-Difluoroethane, R152a cas#:(75-37-6) [30-40%]

Information on toxicological effects

Acute toxicity:

Oral LD50 Inhalation LC50 LC50 Inhalation - mouse - 2 h - 977,000 mg/m3

Dermal LD50 no data available

Other information on acute toxicity

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Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

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: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: Acts as a simple asphyxiant by displacing air., Dizziness, Disorientation, Headache, excitement, Central nervous system depression, May be harmful., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information:

RTECS: KI1410000

Dimethyl ether cas#:(115-10-6) [30-40%]

Information on toxicological effects

Acute toxicity:

Oral LD50 no data available

Inhalation LC50 LC50 Inhalation - rat - male - 4 h - 164000 ppm Remarks: Behavioral:Ataxia. Behavioral:General anesthetic. Behavioral:Coma.

Dermal LD50

Other information on acute toxicity

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation - negative

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Genotoxicity in vitro - Chromosome aberration test in vitro - Human lymphocytes - with and without metabolic activation -
Genotoxicity in vivo - Drosophila melanogaster - male - inhalation (gas) - negative

Carcinogenicity:

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: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation. Eyes May cause eye irritation.

Signs and Symptoms of Exposure: Blurred vision, Headache, Dizziness, Convulsions, Asphyxia, Unconsciousness, Liver disorders

Synergistic effects: no data available

Additional Information:

RTECS: PM4780000

Isopropanol cas#:(67-63-0) [<2%]

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - 5,045 mg/kg Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity).

LC50 Inhalation - rat - 8 h - 16000 ppm

LD50 Dermal - rabbit - 12,800 mg/kg

no data available

Skin corrosion/irritation: Skin - rabbit Result: Mild skin irritation

Serious eye damage/eye irritation: Eyes - rabbit Result: Eye irritation - 24 h

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol)

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

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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: no data available

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: NT8050000

Central nervous system depression, prolonged or repeated exposure can cause:, Nausea, Headache, Vomiting, narcosis, Drowsiness,
Overexposure may cause mild, reversible liver effects.
Kidney - Irregularities - Based on Human Evidence

Polytetrafluoroethylene cas#:(9002-84-0) [<2%]

Information on toxicological effects

Acute toxicity:

Oral LD50 no data available

Inhalation LC50

Dermal LD50

Other information on acute toxicity

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: Eyes: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Ethene, 1,1,2,2-tetrafluoro-, homopolymer)

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: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been

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thoroughly investigated.

Synergistic effects: no data available

Additional Information:

RTECS: Not available

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ECOLOGICAL INFORMATION

Isohexane cas#:(107-83-5) [20-30%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life with long lasting effects.

Cyclopentane cas#:(287-92-3) [0-3%]

Information on ecological effects

Toxicity:

Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 10.52 mg/l - 48 h.
and other aquatic invertebrates

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

n-Hexane cas#:(110-54-3) [0-2%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 2.5 mg/l - 96.0 h.

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 3,878.00 mg/l - 48 h.
other aquatic invertebrates

Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 12,840.00 mg/l - 3 h.
EC50 - SKELETOMA - 0.30 mg/l - 8 h

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Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

1,1-Difluoroethane, R152a cas#:(75-37-6) [30-40%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

Dimethyl ether cas#:(115-10-6) [30-40%]

Information on ecological effects

Toxicity:

Toxicity to fish semi-static test LC50 - Poecilia reticulata (guppy) - > 4.1 g/l - 96 h.

Toxicity to daphnia static test EC50 - Daphnia magna (Water flea) - > 4.4 g/l - 48 h.
and other aquatic invertebrates

Toxicity to bacteria Respiration inhibition EC10 - Pseudomonas putida - ca. > 1,600 mg/l - 30 min:

Persistence and degradability: Biodegradability aerobic Result: 5 % - Not readily biodegradable. Method: OECD Test Guideline 301D

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

Isopropanol cas#:(67-63-0) [<2%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h.

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 h.

other aquatic invertebrates

Immobilization EC50 - Daphnia magna (Water flea) - 6,851 mg/l - 24 h

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 h.

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EC50 - Algae - > 1,000.00 mg/l - 24 h

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

Polytetrafluoroethylene cas#:(9002-84-0) [<2%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

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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.

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TRANSPORT INFORMATION

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

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REGULATORY INFORMATION

[%] RQ (CAS#) Substance - Reg Codes

Dry Film 4A

[20-30%] Isohexane (107-83-5) MASS, PA, TSCA

[0-3%] Cyclopentane (287-92-3) MASS, OSHAWAC, PA, TSCA, TXAIR

[0-2%] RQ(5000LBS), n-Hexane (110-54-3) CERCLA, HAP, MASS, OSHAWAC, PA, SARA313, TSCA, TXAIR

[30-40%] 1,1-Difluoroethane, R152a (75-37-6) CFATS, GADSL, MASS, TSCA

[30-40%] Dimethyl ether (115-10-6) CFATS, HAP, MASS, PA, TSCA

[<2%] Isopropanol (67-63-0) MASS, NJHS, NRC, OSHAWAC, PA, SARA313, TSCA, TXAIR

[<1%] Poly(difluoromethylene), .alpha.-(cyclohexylmethyl)-.omega.-hydro- (65530-85-0) TSCA

[<2%] Polytetrafluoroethylene (9002-84-0) PA, TSCA



WARNING

This product can expose you to chemicals including n-Hexane, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Regulatory Code Legend

RQ = Reportable Quantity

MASS = MA Massachusetts Hazardous Substances List

PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

OSHAWAC = OSHA Workplace Air Contaminants

TXAIR = TX Air Contaminants with Health Effects Screening Level

CERCLA = Superfund clean up substance

HAP = Hazardous Air Pollutants

SARA313 = SARA 313 Title III Toxic Chemicals

CFATS = DHS Chemicals of Interest

GADSL = Global Automotive Declarable Substance List (GADSL)

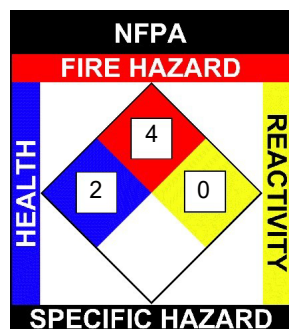
NJHS = NJ Right-to-Know Hazardous Substances

NRC = Nationally Recognized Carcinogens

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OTHER INFORMATION

NFPA: Health = 2, Fire = 4, Reactivity = 0, Specific Hazard = n/a



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 SDS does not indicate that the possessor of the SDS was a purchaser or user of the subject product.

Safety Data Sheet

Dry Film 4A

Revision Date: 11/17/2022