

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SF-4200-ISO**
CHEMICAL FAMILY NAME: Aromatic Isocyanates
U.N. NUMBER: None
U.N. DANGEROUS GOODS CLASS: Non-Regulated Material
SUPPLIER/MANUFACTURER'S NAME: **Progressive Materials, LLC**
ADDRESS: 540 Central Court, New Albany, IN 47150 USA
EMERGENCY PHONE: **TOLL-FREE in USA/Canada - Chemtrec** 1-800-424-9300
National Poison Control Center (U.S.) 1-800-222-1222
BUSINESS PHONE: 812-944-7803 (Product Information)
WEB SITE: www.pmsilicone.com
DATE OF CURRENT REVISION: October 06, 2017
DATE OF LAST REVISION: February 19, 2015

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Product Description: This product is a dark amber liquid with a slight odor.

Health Hazards: Exposure to the product may cause skin, respiratory and eye irritation. Prolonged exposure may cause skin or respiratory sensitization. Ingestion of this product may cause gastrointestinal irritation.

Flammability Hazards: This product is flammable with a flash point 428°F (220°C) Open Cup.

Reactivity Hazards: None known.

Environmental Hazards: The environmental effects of this product have not been investigated; however it is not expected to cause significant adverse effects in the environment.

Emergency Considerations: Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they are responding.

US DOT SYMBOLS

Non-Regulated Material

GHS Hazard Symbols



Signal Word: **Danger!**

GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE IN ACCORDANCE WITH 29 CFR 1200 (OSHA HCS) AND THE EUROPEAN UNION DIRECTIVES:

This product does meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 AND the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS:

CAS# 9016-87-9 This substance is not listed in ESIS

EC# 202-966-0 Annex VI Index# 615-005-00-9

EC# 247-714-0 Annex VI Index# 615-005-00-9

Substances not listed either individually or in group entries must be self classified

Component(s) Contributing to Classification(s)

P-MDI, Diphenylmethane-4,4'-diisocyanate, MDI Mixed Isomers

GHS Hazard Classification(s):

Acute Inhalation Toxicity Category 4

Skin Irritant Category 2

Eye Irritant Category 2

Respiratory Sensitizer Category 1

Skin Sensitizer Category 1

Carcinogenicity Category 2

Specific Target Organ Toxicity – Single Exposure - Category 3

Specific Target Organ Toxicity – Repeated Exposure - Category 2

Hazard Statement(s):

H332: Harmful if inhaled
H315: Causes skin irritation
H319: Causes serious eye irritation
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317: May cause an allergic skin reaction
H351: Suspected of causing cancer
H335: May cause respiratory irritation
H373: May cause damage to organs through prolonged or repeated exposure

Prevention Statement(s):

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response Statement(s):

P308+P313: IF exposed or concerned: Get medical advice/attention.
P302+P352: IF ON SKIN: Wash with plenty of water.
P314: Get medical attention if you feel unwell.
P321: Specific treatment (See Section 4 of this SDS).
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.

Storage Statement(s):

P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.

Disposal Statement(s):

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

HEALTH HAZARDS OR RISKS FROM EXPOSURE:

This product does not meet the criteria for PBT or vPvB in accordance with Annex XIII

ACUTE: This material may cause irritation to skin, respiratory system and eyes. Prolonged exposure may cause skin and respiratory sensitization. Ingestion of this product may cause gastrointestinal irritation.

CHRONIC: The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Medical supervision of all employees who handle or come into contact with isocyanates is recommended.

TARGET ORGANS: ACUTE: Eye, Skin, Respiratory System CHRONIC: Skin, Respiratory System

SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	EINECS #	ICSC #	WT %	HAZARD CLASSIFICATION
P-MDI	9016-87-9	Not Listed in ESIS	Not Listed	45 – 55%	ACUTE TOX CAT 4 (INHAL), SKIN IRRIT CAT 2, EYE IRRIT CAT 2A, RESP SENS CAT 1, SKIN SENS CAT 1, CARC CAT 2, STOT SE CAT 3 (RESP IRRIT), STOT RE CAT 2
Diphenylmethane-4,4'-diisocyanate	101-68-8	202-966-0	0298	30 – 40%	ACUTE TOX CAT 4 (INHAL), SKIN IRRIT CAT 2, EYE IRRIT CAT 2A, RESP SENS CAT 1, SKIN SENS CAT 1, CARC CAT 2, STOT SE CAT 3 (RESP IRRIT), STOT RE CAT 2
MDI Mixed Isomers	26447-40-5	247-714-0	Not Listed	1 – 10%	ACUTE TOX CAT 4 (INHAL), SKIN IRRIT CAT 2, EYE IRRIT CAT 2A, RESP SENS CAT 1, SKIN SENS CAT 1, CARC CAT 2, STOT SE CAT 3 (RESP IRRIT), STOT RE CAT 2
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).					

SECTION 4 - FIRST-AID MEASURES

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention.

SKIN CONTACT: Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder contaminated clothing before re-use.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin, respiratory or eye problems may be aggravated by exposure to this product.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and reduce over-exposure

SECTION 5 - FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS (in air by volume, %): Lower (LEL): Not Established Upper (UEL): Not Established

FIRE EXTINGUISHING MATERIALS: Carbon dioxide, foam, dry chemical, halon, water spray, sand, limestone powder.

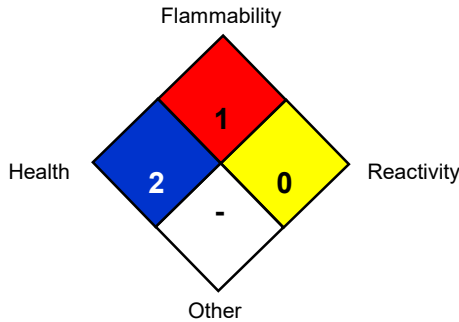
UNUSUAL FIRE AND EXPLOSION HAZARDS: This material is flammable above flash point shown above.

Explosion Sensitivity to Mechanical Impact: Not Sensitive.



Explosion Sensitivity to Static Discharge: Not Sensitive

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			2
FLAMMABILITY HAZARD (RED)			1
PHYSICAL HAZARD (YELLOW)			1
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Personnel should be trained for spill response operations.

SPILLS: Contain spill if safe to do so. Prevent entry into drains, sewers, and other waterways. Soak up with a non-combustible absorbent material and place in an appropriate container for disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors/mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: Keep container tightly closed and in a dry and cool place.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

Chemical Name	CAS#	ACGIH TWA	OSHA TWA	WEEL
P-MDI	9016-87-9	Not Listed	Not Listed	Not Listed
Diphenylmethane-4,4'-diisocyanate	101-68-8	0.05 mg/m ³	0.2 mg/m ³	0.05 mg/m ³
MDI Mixed Isomers	26447-40-5	Not Listed	Not Listed	Not Listed

Currently, International exposure limits are not established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above. Use local exhaust ventilation to control airborne vapor. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or chemical goggles as appropriate to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

HAND PROTECTION: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
APPEARANCE & ODOR:	Dark amber liquid with a slight aromatic odor.
ODOR THRESHOLD (PPM):	Not Available
FLASH POINT:	428°F (220°C) Open Cup
AUTOIGNITION TEMPERATURE:	Not Established
VAPOR PRESSURE (mmHg):	0.00016 mmHg
DENSITY:	1.22 g/cm ³
EVAPORATION RATE (nBuAc = 1):	Not Available
BOILING POINT (C°):	200°C
FREEZING POINT (C°):	3°C
pH:	Not Applicable
VISCOSITY, Dynamic	200 mPa.s
SOLUBILITY IN WATER (%):	Reacts with water
EXPLOSIVE PROPERTIES:	Not Available
OXIDISING PROPERTIES:	Not Available

SECTION 10 - STABILITY and REACTIVITY

STABILITY: Product is stable

DECOMPOSITION PRODUCTS: When heated to decomposition this product produces carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapours

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Water, alcohols, strong bases, Substances/products that react with isocyanates.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid moisture.

NOTE: Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalis. Reacts with amines. Risk of exothermic reaction. Risk of violent reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICITY DATA: Toxicity data is not available for this product:

Information on: MDI Assessment of acute toxicity: Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Oral LD50 rat: > 10,000 mg/kg Practically nontoxic.

Inhalation LC50 rat: > 2.240 mg/l Exposure time: 1 h Moderately toxic.

Irritation / corrosion

Information on: MDI

Assessment of irritating effects: Irritating to eyes, respiratory system and skin.

Sensitization

Information on: MDI

Assessment of sensitization: The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible. Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Acute toxicity	Acute Toxicity Category 4 (Inhalation)
Skin corrosion / irritation	Skin Irritation Category 2
Serious eye damage / irritation	Eye Irritation Category 2A
Respiratory or skin sensitization	Skin Sensitization Category 1
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Carcinogenicity Category 2
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Specific Target Organ Toxicity – Single Exposure (Respiratory Irritation)
STOT-repeated exposure	Specific Target Organ Toxicity – Repeated Exposure Category 2
Aspiration hazard	Based on available data, the classification criteria are not met

SUSPECTED CANCER AGENT: None of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore are not considered to be, nor suspected to be a cancer-causing agent by these agencies. EU considers this material a possible carcinogen based on animal tests. However, the relevance of this result for humans is unclear.

IRRITANCY OF PRODUCT: Contact with this product can be irritating to exposed skin respiratory system and eyes.

SENSITIZATION OF PRODUCT: This product is considered a skin and respiratory sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: No reported information concerning the effects of this product and its components on the human reproductive system.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: Respiratory system irritation.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: Inhalation - May cause damage to organs through prolonged or repeated exposure. - Respiratory system

ASPIRATION HAZARD: None

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

TOXICITY: No specific data is currently available on this product's effects on aquatic life.

PERSISTENCE AND DEGRADABILITY: No specific data available on this product.

BIOACCUMULATIVE POTENTIAL: No specific data available on this product.

MOBILITY IN SOIL: No specific data available on this product.

RESULTS OF PBT AND vPvB ASSESMENT: No specific data available on this product.

OTHER ADVERSE EFFECTS: No specific data available on this product.

WATER ENDANGERMENT CLASS: Not believed to be water endangering in accordance with EU Guideline 91/155-EWG. At present there are no ecotoxicological assessments for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

RCRA WASTE CODE: None listed

EU WASTE CODE: Not Listed

SECTION 14 - TRANSPORTATION INFORMATION

US DOT; IATA; IMO; ADR:

THIS PRODUCT IS NOT CLASSIFIED AS DANGEROUS GOODS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Non-Regulated Material

HAZARD CLASS NUMBER and DESCRIPTION: None

UN IDENTIFICATION NUMBER: None

PACKING GROUP: None

DOT LABEL(S) REQUIRED: None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2016): None

MARINE POLLUTANT: This product's ingredients that are not classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

This product is not classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

This product is not classified as Dangerous Goods, by rules of IATA:

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:

This product is not classified as Dangerous Goods by the International Maritime Organization.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD

(ADR):

This product is not classified by the United Nations Economic Commission for Europe to be dangerous goods.

Harmonized Tariff Code Unknown

SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This product is subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows:

SARA 313 REPORTING: Diisocyanates Compound Category

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: Yes Chronic Health: Yes Fire: No Reactivity: No

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Diphenylmethane-4,4'-diisocyanate (MDI)CAS# 101-68-8 5,000 Lbs.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): None of the ingredients are on the California Proposition 65 lists above the threshold levels.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS:All of the components of this product are on the DSL Inventory

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Classified per WHMIS 2015.

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

EU LABELING AND CLASSIFICATION:

Classification of the mixture according to Regulation (EC) No1272/2008. See section 2 for details.

AUSTRALIAN INFORMATION FOR PRODUCT:

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS: All components of this product are listed or exempt from listing on the AICS.

STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS: Not applicable.

JAPANESE INFORMATION FOR PRODUCT:

JAPAN INDUSTRIAL SAFETY AND HEALTH LAW: This product has been classified per the Japan Industrial Safety and Health Law. See Section 2 for the GHS Classification.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac:	Listed
Australian Inventory of Chemical Substances (AICS):	Listed
Korean Existing Chemicals List (ECL):	Listed
Japanese Existing National Inventory of Chemical Substances (ENCS):	Listed
Philippines Inventory of Chemicals and Chemical Substances (PICCS):	Listed
Swiss Giftlist List of Toxic Substances:	Listed
U.S. TSCA:	Listed

SECTION 16 - OTHER INFORMATION

PREPARED BY: Chris Eigbrett

MSDS to GHS Compliance
www.msdstoghs.com

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