

SAFETY DATA SHEET
InstaCote IC-SE FR, Isocyanate , Part "A"

Section 1 – Product and company identification:

Product Name: IC-SE FR, Isocyanate, Part "A"
Multiple Parts (Yes/No): Yes
Other names and synonyms
Aromatic Isocyanates or Diisocyanate prepolymer

Manufactured by:

INSTACOTE, INC.
160 C Lavoy Rd.
Erie, MI 48133
Phone (734) 847-5260 Fax (743) 847-9008
Emergency number 419 343 6727

Validation date: January 8, 2016

Section 2– Hazard Identification:

Physical state: Liquid
Color: Clear-amber
Odor: Faint
OSAH/HCS status: This material is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200)

Emergency overview: WARNING!

Primary Routes of Exposure: Skin Contact, Ingestion and Inhalation. Prolonged and repeated skin contact may cause irritation and burns. Sensitization is possible. Ingestion of product will cause irritation of the mouth, pharynx, esophagus and stomach. Breathing atomized vapors may cause headaches, nausea, and irritation of the nose, throat and lungs.

Carcinogenicity: Not listed by NTP or IARC. Not regulated by OSHA.

Hazard Info (US) **Health-2** **Fire-1** **Reactivity-1** **Special- None**
Scale 4 = extreme, 3 = high, 2 = moderate, 1 = insignificant

GENERAL INFORMATION: Read this entire SDS for a more thorough evaluation of the hazards.

Section 3– Composition/information on ingredients:

Name	CAS Number	Weight %
4,4'-diphenylmethane diisocyanate	101-68-8	>80%
Mixed-isomer MDI	26447-40-5	16-30%
Isocyanate Prepolymer		25 – 75%

Emergency overview *CONTAINS ISOCYANATES AND INHALATION OF VAPOR OR MISTS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. LONG TERM EXPOSURE MAY CAUSE BRONCHITIS, SPASMS /PULMONARY EDEMA WITH REDUCED LUNG FUNCTION. OVEREXPOSURE MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS RESULTING IN ALLERGIC REACTIONS WITH WHEEZING SHORTNESS OF BREATH AND DIFFICULTY BREATHING. SKIN EXPOSURE IN ANIMAL TESTS IS THOUGHT TO PLAY A ROLE IN RESPIRATORY SENSITIZATION.*

Section 4— First aid measures:

General Advice: Remove contaminated clothing

Eye Contact: Flush eyes with a large amount of water for at least 15 minutes. Immediate medical attention required.

Skin Contact: Remove contaminated clothing. Wash area with soap and water. Wash clothing prior to re-use. Seek immediate medical attention if irritation develops

Ingestion: Have individual drink 1-2 glasses of milk or water to dilute. Do not induce vomiting. Never give anything by mouth to an unconscious person. Immediate medical attention required.

Inhalation: Move individual to fresh air. If breathing becomes labored, administer O₂. Immediate medical attention required.

Most important symptoms and effects, delayed and acute

The delayed and acute symptoms' described in section three can appear later and be delayed in their manifestation differently by individuals. These substances can cause permanent damage.

Section 5— Fire-fighting measures:

Flash Point: 110°C, (230°F)

Flammable Limits: Upper: Not Established Lower: Not Established

Extinguishing methods: Water fog, dry powder, carbon dioxide, foam

Combustion products: Carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂, etc.) hydrocarbons and HCN.

Extinguishing Media: Dry chemical, foam, CO₂ and water fog. Do not spray water into hot material; use water fog to cool surrounding fire.

Special Hazards: Nitrous gases, fumes/smoke isocyanate, vapor

Special Fire Fighting Precautions: Full face shield, self-contained breathing apparatus (SCBA) with full protective gear. And turn out gear.

Special Remarks: Due to reaction with water producing CO₂-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may burst if overheated. Keep containers cool.

Section 6– Accidental release measures:

- Spills/Leaks: Ventilate area and eliminate all sources of ignition. Wear appropriate protective gear (see section 8), contain spill, salvage, and clean up residue with absorbent material.
- Environmental: Do not discharge to drains and sewers/surface waters/ground water.
- Disposal Method: Dispose in accordance with federal, state and /or local regulations. (See section 13)
Landfill if solid, incinerate at agency approved waste-disposal.
Neutralization solution
Use 2% liquid detergent mixed with 8% Ammonium hydroxide in water. Use 10 parts of solution for one part of Spill material. Allow 48 hours to deactivate before placing spilled material into drums.
This will allow CO₂ gas to escape
Large spills use protein foam blanket.
Do not mix with any other waste material.

Section 7– Handling and storage:

- Handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Avoid breathing vapor or mist. Never reuse an empty container due to residual chemical content. Decontaminate container prior to disposal. Do not heat, torch cut, weld or otherwise apply extreme heat to the metal container. Residual chemical will decompose to produce harmful vapors.
- Storage: Store between 16°C(60°F)--38°C(100°F). Shelf life under proper storage conditions is 6 months from date of receipt. Insure drum closure to be tight. Store product in a dry environment away from strong oxidizing agents. Protect product from extremes in temperatures. Do not store in containers made of copper, copper alloy or galvanized surfaces.

Section 8– Exposure controls/personal protection:

- | | |
|--------------------|--------------------|
| Product name: | Exposure limits: |
| 4,4'MDI (101-68-8) | TWA: 0.005 ppm 8 h |
| | CLV: 0.002 ppm |

Consult local authorities for acceptable exposure limits.

- Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build-up of heavy vapors.
- PPE: **DO NOT WEAR CONTACT LENSES** when working with this product. Wear chemical goggles/safety glasses with side shields and rubber/latex gloves. Selection of items such as boots and apron will depend on the experience of the operator. Respirators

are not required with the use of this product alone. Refer to the MSDS of the related component for this product. Wear respirator protection whenever a mist is generated such as spray application. Spray application in confined spaces, closed rooms, or tanks are areas where mist generation will exceed TLV or TWA. Refer to OSHA CFR29 1910.134 for recommended respiratory protection.

Neutralization Procedures:

Use 2% liquid detergent mixed with 8% Ammonium hydroxide in water. Use 10 parts of solution for one part of Spill material. Allow 48 hours to deactivate before placing spilled material into drums.
Do not mix with any other waste material.

Section 9 – Physical and chemical properties:

Appearance: Clear Thick Liquid
Color: amber
Odor: faint
Boiling Point: 738°F, decomposes
Flash point: 97°C (200°F)
Lower explosion limit:N/A
Upper explosion limit:N/A
pH: N/A
Freezing point: -58°C (-74°F)
Specific Gravity: 1.12 @ 20°C (68°F) V.O.C.: 0.0 lbs./gal.
Vapor Pressure: 0.00001 mm Hg@ 25°C
Water Solubility: Reacts with water
Autoignition temp: >250°C
Viscosity, dynamic: 1300 cps@ 23°C (73.4°F)
Evaporation Rate: NA
Bulk density: 9.5 lb/gal

Section 10 – Stability and reactivity:

Stability/reactivity: Stable at room temperature. Reaction with water (moisture) produces CO₂-gas. Exothermic reaction with material containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures.

Instability: Avoid high temperatures, avoid freezing

Materials to Avoid: Strong Acids or Strong Oxidizing Agents

Hazardous Polymerization:

May occur with contact with moisture at temperatures above 400°F and in the presence of alkalis, amines and metals.

Hazardous Decomposition Products:

Oxides of Carbon And Nitrogen, Ammonia and trace amount Hydrogen Cyanide.

Section 11 – Toxicological information:

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation. Also eyes and skin. Gases is eyes and inhalation.

Toxicology data:

Product/ingredient name	Test	Species	Result	Exposure
Polymeric MDI	LD50,oral	Rat	5000mg/kg	-
	LC50, aerosol	Rat	490mg/m ³	4hrs

Acute and long term: see section 8

Carcinogenicity Rats have been exposed for two years to a respirable aerosol of polymeric MDI which resulted in chronic pulmonary irritation at high concentrations. Only at the top level (6 mg/m³), there was a significant incidence of a benign tumor of the lung (adenoma) and one malignant tumor (adenocarcinoma). There were no lung tumors at 1 mg/m³ and no effects at 0.2 mg/m³. Overall, the tumors incidence, both benign and malignant, and the number of animals with the tumors were not different from controls. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung, which occurred throughout the study. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumor formation will occur.

Mutagenicity: No evidence of mutagenic potential

Section 12 – Ecological information:

Biodegradation: 0%, 28days, not readily biodegradable.

Product/ingredient name	Test	Species	Result	Exposure
4,4'- MDI	LC0	Fish	>1000mg/l	96hrs
	EC0	Daphnia	>1000mg/l	48hrs

Section 13 – Disposal consideration:

Disposal Method: Dispose in accordance with federal, state and /or local regulations. Landfill if solid, incinerate at agency approved waste-disposal facility.

Empty container precaution: Never reuse an empty container due to residual chemical content. Decontaminate container prior to disposal. Do not heat, torch cut, weld or otherwise apply extreme heat to the metal container. Residual chemical will decompose to produce harmful vapors.

Section 14– Transportation information:

Land transport Not classified as a dangerous good under regulations
USDOT

Sea transport Not classified as a dangerous good under regulations
IMDG

Air Transport Not classified as a dangerous good under regulations
IATA/ICAO

Further Information

DOT: This product is regulated if the amount in a single receptacle exceeds the reportable quantity of 5,000#.

Section 15– Regulatory information:

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Acute; Chronic

EPCRA 313:

CAS Number

101-68-8

Chemical name

Diphenylmethane-4,4'-diisocyanate (MDI)

CERCLA RQ

5000 LBS
diisocyanate (MDI)

CAS Number

101-68-8

Chemical name

Diphenylmethane-4,4'-

State regulations

State RTK

MA, NJ, PA
diisocyanate (MDI)
NJ

CAS Number

101-68-8

26447-40-5

Chemical name

Diphenylmethane-4,4'-

Methylenediphenyl diisocyanate

NFPA Hazard codes:

Health : 2 Fire: 1 Reactivity: 1 Special:

HMIS III rating

Health: 2 Flammability: 1 Physical hazard: 1

Section 16– Other information:

The handling of MDI and/or polymeric MDI requires appropriate protective measures referred to in this MSDS. These products are therefore recommended only for use in industrial or trade (commercial) applications. They are not suitable for use in Do-it-yourself applications.

Contact person: Thomas J. Nachtman
Telephone: 734-847-5260
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This version replaces all previous versions.

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