

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name **IROGRAN® A 78 P 4766**

MSDS#00018182

Product Use Thermoplastic polyurethane

Huntsman Polyurethanes (an international business unit of Huntsman International LLC.)

286 Mantua Grove Rd.
West Deptford, NJ 08066-1723

For Polyurethanes product information/assistance:

West Deptford: (800)257-5547

Auburn Hills: (800)553-8624

Canadian Office: (905)678-9150

In Case of Emergency

Spills Leaks Fire or Exposure Call Chemtrec: (800) 424-9300
Medical Emergency Information: (800) 328-8501

Section 2. Composition, Information on Ingredients

| | % | CAS# |
|------------------------------|--------|---------------|
| Thermoplastic Polyurethane | 70-100 | Not Disclosed |
| Proprietary Flame Retardants | 10-30 | Not Disclosed |

* Occupational Exposure Limit(s), if available, are listed in section 8

Section 3. Hazards Identification

This material is classified as NON-hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

Physical State and Appearance Solid. (Solid pellets.)

Emergency Overview During handling and use, product can cause static discharge. In the presence of flammable materials a fire and/or explosion may occur. Molten material may cause thermal eye burns. Molten material may cause thermal skin burns. Processing vapors may cause respiratory tract irritation.

GENERAL INFORMATION Read the entire MSDS for a more thorough evaluation of the hazards.

Section 4. First Aid Measures

| | |
|---------------------------|---|
| General | Only normally needed for thermal burns and for inhalation of smoke from burning material. |
| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. |
| Skin Contact | Molten material can cause severe burns. Do NOT try to peel molten polymer from the skin. Immediately immerse in or flush with large amounts of cold water to dissipate heat. Cover with gauze and get prompt medical attention. |
| Inhalation | Remove patient from exposure, keep warm and at rest. Obtain medical advice IMMEDIATELY. |
| Ingestion | First aid is normally not required. |
| Notes to Physician | Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours. |

Section 5. Fire Fighting Measures

| | |
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| Auto-ignition Temperature | Not available. |
| Flash Points | Not applicable. |
| Flammable Limits | Not available. |
| Products of Combustion | Thermal decomposition products are toxic and may include oxides of carbon and nitrogen, amines, possibly other irritating gases. |
| Fire Hazards in Presence of Various Substances | During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. Transferring dry pellets or granules between containers or charging into solvents can cause a build-up of static electricity which can be sufficient to cause fires and/or explosions in the presence of flammable materials. Equipment should provide a means of dissipating any charges that may develop. |
| | Water spray should be used to cool containers. |
| Fire Fighting Media and Instructions | SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet. |

Protective Clothing (Fire) Splash goggles. Full suit. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. A self-contained breathing apparatus should be used to avoid inhalation of the product.

Section 6. Accidental Release Measures

For major spills call Chemtrec (800-424-9300).

See Safety Data Sheet section 8 Personal protective equipment

Large Spill and Leak Collect product for recovery or disposal. Notify applicable government authority if release is reportable or could adversely affect the environment.

Section 7. Handling and Storage

Handling Use normal good industrial hygiene and housekeeping practices. Take precautionary measures against static discharges.

Storage Store in a cool, dry, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Avoid moisture contamination. Transferring dry pellets or granules between containers or charging into solvents can cause a build-up of static electricity which can be sufficient to cause fires and/or explosions in the presence of flammable materials. Equipment should provide a means of dissipating any charges that may develop.

Section 8. Exposure Controls, Personal Protection

Preventive Measures Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

Engineering Controls Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of 'Industrial Ventilation, a manual of Recommended Practice.'

Personal Protection

Eyes Safety glasses.

Body and Hands Lab coat.

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Gloves.

Respiratory Wear appropriate respirator when ventilation is inadequate.

Consult your supervisor or S.O.P. for special handling directions

Personal Protection in Case of a Large Spill Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name**Exposure Limits**

No occupational exposure limits have been assigned.

Section 9. Physical and Chemical Properties

Physical State and Appearance Solid. (Solid pellets.)

pH Not available.

Boiling/Condensation Point Not available.

Melting/Freezing Point Not available.

Evaporation Rate Not available.

Flash Points Not applicable.

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Conditions of Instability Not available.

Incompatibility with Various Substances Not available.

Hazardous Decomposition Products Thermal decomposition products are toxic and may include oxides of carbon and nitrogen, amines, possibly other irritating gases.

Hazardous Polymerization Will not occur.

Section 11. Toxicological Information

| | |
|-----------------------------|--|
| Toxicity to Animals | LC50/LD50: Not available. |
| Inhalation | Unlikely to be hazardous by inhalation in normal industrial use. Processing vapors, mists or dusts may cause respiratory tract irritation. |
| Skin Contact | Non-irritating. Molten polymer will adhere to skin causing deep thermal burns. |
| Eye Contact | May cause physical abrasion in contact with eyes. Molten polymer will cause serious burns to the eyes. |
| Ingestion | Not hazardous in normal industrial use. |
| Carcinogenic Effects | The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP. |
| Mutagenic Effects | There is no substantial evidence of mutagenic potential. |
| Reproductive Effects | No adverse reproductive effects are anticipated. |
| Teratogenic effects | No information is available and no adverse teratogenic/embryotoxic effects are anticipated. |

Section 12. Ecological Information

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|--------------------|----------------|
| Ecotoxicity | Not available. |
|--------------------|----------------|

Section 13. Disposal Considerations

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|--------------------------|--|
| Waste Information | The generation of waste should be avoided or minimized wherever possible. Dispose of waste material at an approved waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems. Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed. |
|--------------------------|--|

Section 14. Transport Information

Transportation Emergency Number 1-800-424-9300 (CHEMTREC).

DOT Classification Not regulated.

TDG Classification Not regulated.

IMO/IMDG Classification Not regulated.

ICAO/IATA Classification Not regulated.

Section 15. Regulatory Information**U.S. Federal Regulations**

This material is classified as NON-hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

HCS Classification Not controlled under the HCS (United States).

TSCA 8(b) inventory:All Ingredients Listed.

SARA Title III Section 313 (40 CFR Part 372): EPCRA Section 313 (40 CFR 372)
No ingredients listed.

This product does not contain nor is it manufactured with ozone depleting substances.

State Regulations

California prop. 65: No ingredients listed.

Canadian Regulations

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS (Material Safety Data Sheet) contains all the information required by the CPR.

WHMIS (Canada) Not controlled under WHMIS (Canada).

CEPA DSL/NDSL:All Ingredients Listed.

Section 16. Other Information**Hazardous Material Information System (U.S.A.)**

| | | |
|-------------|---|---|
| Health | * | 1 |
| Fire Hazard | | 1 |
| Reactivity | | 0 |

National Fire Protection Association (U.S.A.)**Trademarks:**

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IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity, and behavior of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behavior should be determined by the user and made known to handlers, processors and end users.

Verified by cliftj.

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