CLEAR-FLEX SDX POLYURETHANE

Material Safety Data Sheet

January 2015

Clear-Flex® Polyurethane Compound marketed as Clear-Flex® SDX

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Clear-Flex® SDX Polyurethane
MSDS Prepared By	Siftex Equipment Company Inc.
Chemical Name	Polyurethane thermoplastic elastomer
Synonym(s)	TPUR
Molecular Formula	Not Applicable
Product Use	Plastic
OHSA Status	Non-hazardous, no hazardous ingredients subject to reporting under the Toxic Chemical Release Inventory (SARA 313).

2. COMPOSITION INFORMATION ON INGREDIENTS

(*Typical composition is given, and it may vary. A certificate of analysis can be provided.)*

Weight	Component	CAS Registry No.
~ 90 to 95%	urethane polymer	26375-23-5
~ 5 to 10%	copolymer	mixture

3. HAZARDS IDENTIFICATION

CAUTION! MOLTEN MATERIAL WILL PRODUCE THERMAL BURNS.

HMIS® Hazard Ratings: Health-0, Flammability-1, Chemical Reactivity-0, PPI: A

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all information contained in this MSDS must be considered.

4. FIRST-AID MEASURES

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Eyes: If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.

Skin: If burned by contact with molten material, cool as quickly as possible. Do not peel material from skin. Get medical attention.

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Ingestion: Material is not expected to be absorbed from the gastrointestinal tract so that induction of vomiting should not be necessary.
Note to Physicians: Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

5. FIRE FIGHTING MEASURES
Extinguishing Media: water spray and foam. Water spray is preferred. Dry chemical / C02 not generally recommended due to lack of cooling and risk of re-ignition.
Special Fire-Fighting Procedures: Wear self-contained NIOSH breathing apparatus and protective clothing.
Hazardous Combustion Products: carbon dioxide, carbon monoxide.
Unusual Fire and Explosion Hazards: powdered material may form explosive dust-air mixtures.

6. ACCIDENTAL RELEASE MEASURES: Sweep or scoop up and remove.

7. HANDLING AND STORAGE
Personal Precautionary Measures: Avoid contact with molten material.
Prevention of Fire and Explosion: Keep from contact with oxidizing materials. Minimize dust generation and accumulation. In the United States of America, refer to NFPA® Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries."
Storage: Keep container closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
Ventilation: Good general ventilation should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, mechanical generation of dusts, heating, drying, etc.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assume compliance with OSHA Standard B3 FR1152, January 8, 1996.
Respirator type: dust, organic vapor.
Eye Protection: It is good industrial hygiene practice to minimize eye contact. Wear a face shield when working with molten material.
Skin Protection: It is good industrial hygiene practice to minimize skin contact. When material is heated, wear gloves to protect against thermal burns.
Recommended Decontamination Facilities: eye bath, washing facilities.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Solid	Color: Clear/Natural	Odor: Slight Odor Threshold: Not Applicable
Specific Gravity: 1:13	Water Solubility: Negligible	Flash Point: Not Applicable, Combustible Solid.
Melting Point: >200° C	pH: Not Applicable	Thermal Decomposition Temperature: Thermal stability not tested. Low stability hazard expected at normal operating temperatures.

10. STABILITY AND REACTIVITY

Stability: stable **Incompatibility:** Possible incompatibility with strong oxidizing agents.

Hazardous Polymerization: will not occur.

CONDITIONS TO AVOID: Avoid temperatures above 260°C (500° F). Do not hold product for extended periods of time at elevated temperatures or allow thick masses of hot polymer to accumulate because they can decompose emitting hazardous gases.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide, carbon dioxide, tetrahydrofuran, nitriles, amines, nitrogen oxides. Traces of diphenylmethane, diisocyanate (MDI), aliphatic and aromatic hydrocarbons, aldehyedes, acids, and hydrogen cyanide may also be formed.

11. TOXICOLOGY INFORMATION

Known hazards under 29 CFR 1910.1200:

Excessive dust / fume levels produce non-specific irritation of the eyes and respiratory system.

TOXICITY DATA: none established

LISTED AS A CARCINOGEN OR A POTENTIAL CARCINOGEN:

NTP Yes ( ) / No (X)

IARC Yes ( ) / No (X)

OSHA Yes ( ) / No (X)

12. ECOLOGICAL INFORMATION

This material has not been tested for environmental effects. It is a high molecular weight polymer with a very low water solubility. As such, it is expected to have a low biochemical oxygen demand and to cause essentially no oxygen depletion in aquatic systems. It is expected to have a low potential to affect aquatic organisms, secondary waste treatment microorganisms, and the germination and early growth of plants. It is expected to be non-biodegradable and unlikely to bio-concentrate. In a spill situation, it is not expected to cause any adverse environmental effects.

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13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state or local laws. Incinerate.

14. TRANSPORT INFORMATION

Marine pollutant components: none unless listed below.

DOT (USA): Class not regulated **ICAO Status:** Class not regulated **IMDG Status:** Class not regulated

15. REGULATORY INFORMATION

HMIS Rating: Health - 1, Fire - 1, Reactivity - 0

WHMIS (Canada) Status: non-controlled SARA 313: none, unless listed below

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below TSCA (U.S. Toxic Substances Control Act): this product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

EINECS (European Inventory of Existing Commercial Chemical Substances): All components of this product are listed on EINECS. Any polymer intentionally present in this product has regulatory clearance under Directives of the European Union.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

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16. OTHER INFORMATION

USER RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions – in addition to those described herein – are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

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