

MATERIAL SAFETY DATA SHEET**SECTION I CHEMICAL PRODUCT AND COMPANY INFORMATION**

Product Code	:	Multicore MB 35 S
Manufacturer	:	M/S Elastogran Kanoo Polyurethane System LLC P.O.Box 490001 Dubai, U.A.E
CAS NO	:	NA
H.S.CODE	:	NA
Telephone	:	00971 4 447 0807
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SECTION II INGREDIENTS: (% W/W. Unless otherwise noted)

Ingredient		Approx. %
Non hazardous blend of polyether polyol	:	> 75
A mixture of amine catalyst, silicone surfactant	:	< 10
Blowing agent (HCFC 141 b)	:	< 20
CAS	:	None Established

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200) in addition, other substances not hazardous per this OSHA standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

SECTION III HAZARD IDENTIFICATION

Emergency Overview
Irritating to eyes, respiratory system and skin.

Systemic and other effects:
No specific data is available; however repeated exposures are not anticipated to cause any significant adverse effects. Tests with similar polyols show them to be non-carcinogenic.

SECTION IV FIRST AID MEASURES

Eyes	:	Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.
Skin	:	Wash of in flowing water.
Ingestion	:	Induce vomiting if large amount are ingested. Consult medical personnel.
Inhalation	:	No adverse affect by this sort of exposure.

Note to Physician: No specific Antidotes. Supportive care Treatment based on judgment of the physician in response to reaction of the patient.

MATERIAL SAFETY DATA SHEET**SECTION V FIRE FIGHTING MEASURES**

Flash point	:	405°F, 207 °C
Method used	:	ASTM D -93, PMCC
Flammable limits		
LFL	:	Not determine
UFL	:	Not determine
Extinguishing media	:	Water spray or fog, CO2, powder
Fire and Explosive Hazards	:	Not available
Fire Fighting Equipment	:	Wear self contained breathing apparatus.

SECTION VI ACCIDENTAL RELEASE MEASURES

Spill/ Leak Procedures	:	Absorb spilled material with sawdust or clay, dike large spills and place material in salvage containers.
Environmental Precautions	:	Prevent Contamination of soil and water.
Protection of Personnel	:	Wear protective equipment and keep unauthorized persons away.

SECTION VII HANDLING AND STORAGE**Handling**

Avoid contact with eyes, skin and clothing. Avoid breathing vapor or fumes. For protection use protective clothing, hand gloves, chemical resistant goggles. Wash hand thoroughly after handling and before eating and drinking. Protect from possible thermal burns when material has to be handled at 60°C to 80°C.

Storage

Keep container/ drum tightly closed and dry. Keep it in a cool and well ventilated area.

SECTION VIII EXPOSURE CONTROL/ PERSONAL PROTECTION

Good general ventilation should be sufficient for most conditions.

Personal Protection

Skin	:	Wear protective clothing and hand gloves.
Respiratory	:	No respiratory protection is needed under normal condition.
Eye	:	Use chemical resistant goggles, if vapor exposure cause irritation, use a full face respirator.
General	:	Use good personal hygiene practices, wash hand with soap before eating, drinking and after handling the material.

Eye wash fountain and emergency shower should be located at the work area.

MATERIAL SAFETY DATA SHEET**SECTION IX PHYSICAL AND CHEMICAL DATA**

Form	:	Viscous liquid
Color	:	Clear, yellow to orange to brown liquid
Odor	:	Low odor
Boiling Point	:	Decomposes at elevated temperatures.
Vapor pressure	:	Nil
Vapor density	:	> 1.0
Solubility in water	:	soluble
Specific gravity	:	1.12, 25/25 ° C

SECTION X STABILITY AND REACTIVITY

Stability	:	Stable under normal handling condition
Incompatibility	:	Oxidizing materials.
Hazardous Polymerization	:	Will not occur.

SECTION XI TOXICOLOGICAL INFORMATION

Eye	:	May cause moderate eye irritations and slight corneal injury
Skin contact	:	Prolonged exposure may cause skin irritations.
Skin absorption's single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amount. The LD 50 skin absorption in rabbits is > 5000 mg/kg.		
Ingestion	:	Single dose oral toxicity is low. The oral LD 50 for male and female rats is > 5000 mg/kg.
Inhalation	:	No adverse effects are anticipated from inhalation.
Systemic & Other effects	:	No specific data is available; however repeated exposures are not anticipated to cause any significant adverse effects. Tests with similar Polyols show them to be non-carcinogenic.

SECTION XII ECOLOGICAL INFORMATION

Ecotoxicity	:	No relevant studies identified
Bioaccumulation	:	Not available
Biodegradability	:	Not available
Other information on ecotoxicity	:	Not available

SECTION XIII DISPOSAL CONSIDERATIONS

Incinerate and dispose in accordance with a local state and federal regulation.

MATERIAL SAFETY DATA SHEET

SECTION XIV TRANSPORT INFORMATION

This material is not classified as dangerous for conveyance, has no UN number which mean that is not regulated according to Transportation and Dangerous Goods Regulations.

SECTION XV REGULATORY INFORMATION

No data available

SECTION XVI OTHER INFORMATION

Reason for Issue : Revised format
Prepared by : Q.C and R&D Department

REGULATORY INFORMATION:
(Not meant to be all inclusive selected Regulations represented.)

Notice: The information herein is presented in good faith and believed to be accurate as the effective data shown above, however no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with Federal Law, State or provincial and Local Laws. The following specific Information is made for the purpose of complying with numbers federal, state or provincial and local laws and regulations. See MSDS for health and safety information.

Technical Data Sheet

Multicore MB 35 S

Application

PU spray foam system for the production of spray foam for insulation as well as water proof application. The system can be applied on substrate like metal, plywood and concrete. Suitability must be examined by the user prior to commercial use.

Chemical Characteristics

Polyol-Component: mixture of polyols, fire retardants, stabilizer, catalyst, blowing agent HCFC141 b
Iso-Component: polymeric diphenylmethane diisocyanate (IsoPMDI 92140)

Supply

The type of supply for the components will be decided after consultation with our Sales Office.

Storage, Preparation

Polyurethane components are moisture sensitive. Therefore they must be stored at all times in sealed, closed containers. More detailed information should be obtained from the separate data sheet entitled "Information for in-coming material control, storage, material preparation and waste disposal" and from the component data.

Processing

For the processing follow the information provided by our technical adviser.

Possible Hazards

The B-component (Isocyanate) irritates the eyes, respiratory organs and the skin. Sensitisation is possible through inhalation and skin contact. PMDI is harmful by inhalation. On processing these, take note of the necessary precautionary measures described in the Material Safety Data Sheets (MSDSs). This applies also for the possible dangers in using the A-component (Polyol) as well as any other components. See also our separate information sheet "Safety- and Precautionary Measures for the Processing of Polyurethane Systems." Use our Training Programme "Safe Handling of Isocyanate."

Waste Disposal

More detailed information is provided in our country –specific pamphlet.

Consumer articles, medical products

There are national and international laws and regulations to consider if it is intended to produce consumer articles (eg articles that necessitate food or skin contact, toys etc.) or medical objects out of Elastogran's products. Where these do not exist, the current legal requirements of the European Union for consumer articles as well as medical products should be sufficient. Consultation with the Elastogran Sales Office and our Ecology and Product Safety Department is strongly recommended.

Multicore MB 35 S

Component Data

Characteristics	Unit	Component A Multicore MB 35 S	Component B Iso PMDI 92140	Method
Specific Gravity (25°C)	—	1.14 ± 0.02	1.24 ± 0.02	EKPS-01-01
Viscosity (25°C)	Cps	300 ± 100	170 - 250	EKPS-02-01
Storage stability	Days	180	180	

*find below basic mix ratio

Processing Data

Cup test by Bench mixer at 3000 rpm

	Unit	specification	Method
Guide formulation	Component A	Multicore MB 35 S (pbw) = 100	
	Component B	Iso PMDI 92140 (pbw) = 100	
Component temperature	°C	20	
Quantity	g	A = 75 B = 75	
Mixing ratio		A : B = 100 : 100	
Stirring time	s	4	
Cream time	s	4 ± 2	EKPS-04-01
Gel time	s	8 ± 2	EKPS-04-01
Tack Free time	s	10 ± 2	EKPS-04-01
Density, free rise	kg/m ³	25 ± 0.5	EKPS-04-01

General Advice

It is not known whether this system is equally suitable for all types of sheet metal and primer offered on the market. Therefore, suitability must be examined by the user in each individual case.

Multicre MB 35 S

Characteristics	Unit	Measured value	Test Method
Measured values were determined on specimens during the product approval/Approved product. Verification of these properties on production plants at user's site under prevailing production conditions is required.			
Density / overall	kg/m ³	35	ASTM D 1622
Closed cell content	%	90	ASTM D 6226
Thermal Conductivity	w/mK	0.0210	ASTM C 518
Compressive stress at 10% deformation	kPa	100 min	ASTM D 1621
Dimensional Stability -20°C for 48 hrs +70°C for 48 hrs	% change in volume	0.48 0.66	ASTM D 2126
Flammability	-	B3	DIN 4102

The data contained in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, this data does not relieve processors from carrying out their own investigations and tests; neither does this data imply any guarantee of certain properties, or the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weighs etc given herein may change without prior notice and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (Date of publication).