

Cosmonate M-100 Introduction -Technical Data Sheet-

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KUMHO MITSUI CHEMICALS, INC

Application Technology Center

Cosmonate M-100 Applications

■ Characteristics of Product

Cosmonate M-100 is ordinary product (polymeric MDI) that is widely used in manufacturing polyurethane foam in hard and semi-hard field. Cosmonate M-100 is liquid in normal temperature which can be easily stored and handled down to -20°C . It is solvent-free form with 2.7 average organic function and maximum of 125 cps (25°C) viscosity which is mixed with monomer MDI of 4,4-diphenylmethane diisocyanate and its oligomer above dimer, trimer and tetramer.

■ Product Application



Spray heat insulation



Integrated bath interiors



Sun visor



Arm rest

Cosmonate M-100 is widely used in hard polyurethane foam area as panel for building insulation, spray heat insulation and pipe insulation, and in semi-hard polyurethane area as In-Panel, sun visor and arm rest of vehicle interior.

Cosmonate M-100 Physical properties

■ Product standards & general properties

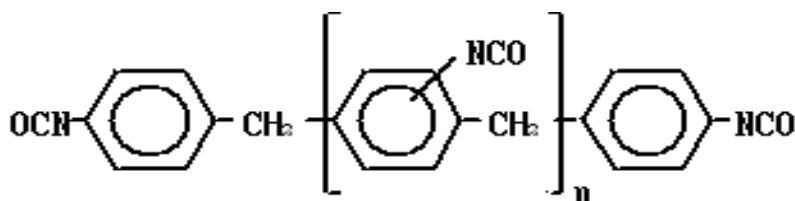
Product Standards

Item	Evaluation method	Unit	Result
NCO Content	ASTM D 1638	wt%	30.0~32.0
Viscosity(25℃)	ASTM D 1638	cps	100~180
Specific Gravity (25℃)	ASTM D 1638	-	1.23~1.25

General Properties

Product Exterior	-		Brown Liquid
Boiling Point	-	℃	200~208
Freezing Point	-	℃	below -20
Pressure (25℃)	-	mmHg	ignorable level
Ignition Point	-	℃	177~218

■ Chemical Structure



Cosmonate M-100 Handling and precautions

■ Product Packaging

Cosmonate M-100 uses 250kg drum package

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■ Safety and Health

Skin contact might cause rash or inflammation and eye contact might cause severe pain and excessive exposure might cause sight disorder. Also, if you inhaled MDI steam, it would cause bronchial asthma, headache, difficulty to breathing, and etc, and in case of taken, it will cause stimulation and inflammation of digestive organs. If contacted with skin, wash out with much water or soapy water. If contacted with eyes, wash out with much water or soapy water for about 15 minutes and get medical examination. Also, if you inhaled MDI steam, move to the fresh area, keep warm stabilized, and practice artificial respiration when it's necessary. If swallowed, feed much water or milk, or raw egg and make them throw up, then get medical examination as soon as possible. It has very rare ignition danger, but watch out for fire hazard if digested, carbonic acid gas digestion is suitable. In case of conflagration, put out with water.

■ Storage and Handling

M-100's proper keeping temperature is 20~35°C. Be extremely cautious so that water doesn't get mixed in storage instrument and seal the instrument with dry nitrogen gas. In case of working with MDI, wear the proper safety tools. If necessary, install ventilation equipment or wear gas mask. After work, be certain to wash with soapy water and clean the contaminated overalls before you wear it.