Cosmonate JG-75K Introduction -Technical Data Sheet-

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KUMHO MITSUI CHEMICALS, INC

Application Technology Center

Cosmonate JG-75K Applications

■ characteristics of product

Cosmonate JG-75K is a special MDI, which is widely used for making polyurethane foams in hard and semihard sectors. It is liquid at room temperature and can be stored and handled easily at a temperature of down to $-10\,^{\circ}$ C. In its solvent-free form, it contains monomeric MDI of 4,4-diphenylmethane diisocyante (MDI) and oligomers, including polymer, trimer, and tetramer, in the mixture. It provides a viscosity of up to 70 cps (25 $^{\circ}$ C) and 2.5 functional groups.

■ product application



Head Liner



Automotive Paint



Spray Foam

Cosmonate JG-75K is developed specifically for headliners of automobiles. It is also used in manufacturing automobile paints and spray foam.

Cosmonate JG-75K Physical properties

■ Product standards & general properties

Product specifications

item	evaluation	unit	Result
NCO content	ASTM D 1638	wt%	31.5~32.3
viscosity(25℃)	ASTM D 1638	cps	40~90
Specific gravity (25℃)	ASTM D 1638	-	1.21~1.23

General physical properties

appearance		Brown liquid
Boiling point	$^{\circ}$	200~208
Freezing point	${\mathbb C}$	Below - 20
Vapor pressure (25°C)	mmHg	Negligible
Flash point	${\mathbb C}$	177~218

■ chemical structure

$$OCN-\left\langle \begin{array}{c} \\ \\ \\ \end{array} \right\rangle -CH_1 \\ \left\langle \begin{array}{c} \\ \\ \end{array} \right\rangle -NCO \\ \left\langle \begin{array}{c} \\ \\ \end{array} -NCO \\ \left\langle \begin{array}{c} \\ \\ \end{array} \right\rangle -NCO \\ \left\langle \begin{array}{c} \\ \\ \end{array} -NCO \\ \left\langle \begin{array}{c} \\ \\ \end{array} \right\rangle -NCO \\ \left\langle \begin{array}{c} \\ \\ \end{array} -NCO \\ \left\langle \begin{array}{c} \\$$

Cosmonate JG-75K Handling and precautions

■ product packaging

Cosmonate JG-75K uses 230kg drum package or bulk supply

■ 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 vapor, 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 vapor, 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

JG-75K 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.