

Cosmonate SR-500 Introduction -Technical Data Sheet-

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Application Technology Center

Cosmonate SR-500 Applications

■ Characteristics of Product

COSMONATE SR-500 is a special polymeric MDI product widely used in the production of hard and semi-hard polyurethane foam. Cosmonate SR-500 is liquid at room temperature and can be stored (-20°C) and handled easily in winter. In its solvent-free form, it provides a viscosity of up to at least 400 cps [25°C] and has 2.8-2.9 average functional groups.

■ Product Application



Refrigerators



Panels for buildings



Spray heat insulation



Automobile interior material

COSMONATE SR-500 is widely used in the areas of hard polyurethane – such as panels for the insulation of architectural structures and refrigerators. This product features high viscosity and a high functional group to provide excellent mechanical properties such as compressive strength and bending strength, as well as demoldability, adiabatic property, and incombustibility.

Cosmonate SR-550의 Physical properties

■ Product standards & general properties

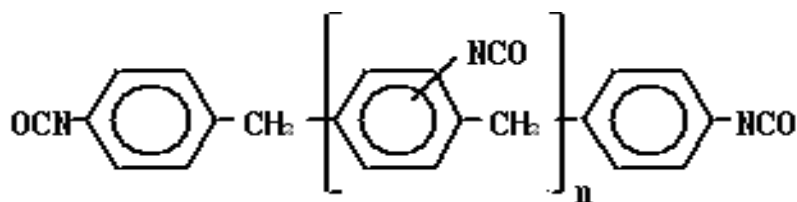
Product Standards

Item	Evaluation method	Unit	Result
NCO content	ASTM D 1638	wt%	30.5 ~ 31.5
Viscosity (25℃)	ASTM D 1638	cps	400 ~ 550
Specific gravity (25℃)	ASTM D 1638	-	1.23 ~ 1.25

General properties

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

■ Chemical Structure



Cosmonate SR-500 Handling and precautions

■ Product Packaging

Cosmonate SR-500 is packed in single 250kg drum or in bulk

■ Safety and Health

Contact with the skin can cause inflammation including a rash, while contact with the eyes can cause severe pain, and visual disturbance may result in the event of excessive exposure. Inhalation of the vapor of MDI can cause bronchial asthma, headaches, or breathing difficulties, and its ingestion can cause irritation and inflammation of the gastrointestinal tract. In cases of contact with the skin, rinse the affected area completely with plenty of water or soapy water. In cases of contact with the eyes, rinse immediately with plenty of water or soapy water for 15 minutes, and seek professional medical help. In cases of MDI vapor inhalation, move the affected individual to a place where there is plenty of fresh air, keep him/her in a warm, stable condition, and perform artificial respiration if needed. In cases of ingestion, allow the affected individual to vomit with their head positioned lower than the hip to prevent suffocation from respiratory tract inhalation, and provide symptomatic treatment. Seek medical help if necessary. In the event of a fire, extinguish with a carbon dioxide fire extinguisher. In the event of a large fire, extinguish with water.

■ Storage and Handling

The optimal storage temperature for SR-500 is 20~35 °C. Caution is needed to prevent moisture from being mixed in the storage container, which should be sealed by dry nitrogen gas if possible. When working with MDI, proper safety equipment should be worn, and a ventilation or gas mask should be used if necessary. After work, wash completely with soapy water. Contaminated work clothes should be washed and cleaned for the next use.