

Material Safety Data Sheet

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Product name	SECTION 1: Product Identification Tetrakis(dimethylamino)cyclopentadienylniobium						
CAS #	NA	110,00	, cropemac	ii cii y ii ii Ooi u ii i			
Catalog #	0410600						
Chemical family	Organic metal derivat	ives					
Chemical family	Organic metal derivat	.1105					
SE	SECTION 2: Composition, Information on Ingredients						
Component		%	CAS#	EINECS #	Hazard Symbol	R-Phrase	
Tetrakis(dimethylamino)cyclopentadienylniobium			NA	none	F Xn	10 14 20/21/22	
SECTION 3: Hazard Identification							
Emergency overview	Flammable liquid. Reacts with water. Harmful by inhalation, if swallowed and if absorbed through the skin.						
Eye contact	May cause irritation of the eyes.						
Skin contact	May cause irritation of						
Inhalation	May be harmful if inh		May caus	se severe irritat	ion of the res	spiratory tract.	
Ingestion	Harmful if swallowed.						
Chronic health effects	No available information about long-term effects.						
SECTION 4: First Aid Measures							
Eye exposure	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally						
	lifting the upper and l						
Skin exposure	Wash the affected area with water. Remove contaminated clothes if necessary						
_	Seek medical assistan	ce if	irritation 1	persists.		-	
Inhalation	Remove from exposure to fresh air immediately. If not breathing, give artificial						
	respiration. If breathing is difficult, give oxygen. In such cases seek immediate						
	medical assistance.						
Ingestion	Don't induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk						
	or water. Get medical	aid i	mmediate	ly.			
SECTION 5: Fire Fighting Massures							
General information	SECTION 5: Fire Fighting Measures ion Flammable liquid. As in any fire, wear a self-contained breathing apparatus in						
General milot manon							
	pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. If involved in fire material may emit toxic fumes.					ia full protective	
Extinguishing media	Do not use water. Use						
Daniguishing media	Do not use water. Ost	on y	- Inclinical	or carbon aroxi			
SECTION 6: Accidental Release Measures							
Spill and leak	Small spills can be mixed with vermiculite or other suitable inert absorbents and						
procedures				01 011101	Suruoic inc.	it absorbents and	

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	SECTION 7. Handling and Starage			
II on -112	SECTION 7: Handling and Storage			
Handling	Avoid inhalation. Don't get in eyes, on skin or on clothing. Handle under an inert atmosphere of argon or nitrogen.			
Ctorogo	Store in a cool, dry place. Keep away from heat, sparks and open flame. Avoid			
Storage	contact with water. Store in a tightly closed container under an inert atmosphere.			
	contact with water. Store in a tightly closed container under an mert atmosphere.			
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	CTION 8: Exposure Controls and Personal Protection			
Eye protection	Always wear approved safety glasses when handling a chemical substance in the			
Clain nuctaction	laboratory. Wear protective gloves.			
Skin protection Ventilation	Handling material in an efficient fume hood. Work with this substance in a well-			
ventilation	ventilated area.			
Respirator	Follow the OSHA respirator regulations found in 29CFR 1910.134 or European			
Respirator	Standard EN 149. Always use a NIOSH or European Standard EN 149 approved			
	respirator when necessary.			
	F			
	SECTION 9: Physical and Chemical Properties			
Appearance	Red-brown liq.			
Odor	No data			
Melting point	No data			
Boiling point	No data			
Flash point	No data			
Solubility in water	Reacts with water			
Specific gravity	No data			
Molecular formula	C13H29N4Nb			
Molecular weight	334.30			
G4 . L '11'4	SECTION 10: Stability and Reactivity			
Stability Hazardous	Air and moisture sensitive.			
Hazardous polymerization	No hazardous polymerization.			
Conditions to avoid	Contact with moist air, water and ignition sources.			
Incompatibilities with	Strong oxidizing agents.			
other materials	Suong oxidizing agono.			
Hazardous decompo-	Carbon monoxide, carbon dioxide, nitrogen oxides, niobium oxides.			
sition products				
F - 3-22-2-2				
SECTION 11: Toxicological Information				
RTECS Data	No data available.			
Carcinogenic effects	No data available.			
Mutagenic effects	No data available.			
Tetratogenic effects	No data available.			
	SECTION 12: Ecological Information			
Ecological	No information available.			
information				

SECTION 13: Disposal Considerations

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Dispose of in a manner consistent with federal, state, and local regulations.					
	SECTION 14: Transport Information				
Shipping name (CFR)	Organometallic substance, liquid, water-reactive, flammable*				
Hazard class (CFR)	4.3				
Additional hazard	3				
class (CFR)					
Packing group (CFR)	II				
UN ID number (CFR)	3399				
Shipping name	Organometallic substance, liquid, water-reactive, flammable*				
(IATA)					
Hazard class (IATA)	4.3				
Additional hazard	3				
class (IATA)					
Packing group					
(IATA)					
UN ID number	3399				
(IATA)					
SECTION 15: Regulatory Information					
TSCA	Not listed in the TSCA inventory				
SARA	Not reported				
SECTION 16: Other Information					
Preparation date	05.11.09				
Revision date	05.11.09				

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.