

## MATERIAL SAFETY DATA SHEET

IDENTIFICATION & USE	TYPE OF PRODUCT <b>Diisopropylamine Reagent</b>		CHEMICAL FAMILY <b>organic amine</b>							
	PRODUCT NUMBER <b>Orion 181191, 181190</b>		FORMULA <b>N-(1-methylethyl)-2-propanamine</b>							
	MANUFACTURER'S NAME AND ADDRESS <b>Thermo Fisher</b>		PRODUCT USE <b>Reagent</b>							
	166 Cummings Center		EMERGENCY TELEPHONE NO. <b>1-800-424-9300</b>							
	Beverly, MA 01915									
	CONTAINER SIZE AND TYPE <b>181190: 0.8 L bottle; 181191: package of 6 bottles</b>		USE AS RECEIVED	YES						
HAZARDOUS INGREDIENTS	SHIPPING NAME <b>Diisopropylamine</b>		CLASS		3(8)					
	PIN <b>1158</b>	WHMIS Classification <b>B2,D1B,E: flammable, toxic, corrosive</b>		PACKING GROUP		II				
	CONCENTRATION*	HAZARDOUS	INGREDIENTS	CHEMICAL NAMES	LD <sub>50</sub> mg/kg	LC <sub>50</sub> **	CAS REGISTRY NO.			
	1 100		<b>diisopropylamine</b>		ORL-Rat		108-18-9			
					420 mg/kg					
PHYSICAL DATA	FREEZING POINT		<b>-61 °C</b>	MELTING POINT		<b>N. Appl. °C</b>	BOILING POINT		<b>84 °C</b>	
	VAPOUR PRESSURE		<b>70 mmHg 20°C</b>	VAPOUR DENSITY (AIR = 1)		<b>3.5</b>	SPECIFIC GRAVITY (H <sub>2</sub> O = 1)		<b>0.722</b>	
	COEFFICIENT OF WATER/OIL DISTRIBUTION		<b>No Data</b>	EVAPORATION RATE		<b>No Data</b>	pH AT 25 °C		<b>12.3</b>	
	ODOUR THRESHOLD		<b>ammonia-like</b>	PHYSICAL STATE		GAS LIQUID <b>X</b> PASTE SOLID POWDER				
	ODOUR AND APPEARANCE <b>Colourless, strong ammoniacal odour</b>									
FIRE & EXPLOSION DATA	FLASH POINT AND METHOD OF DETERMINATION <b>-6°C, closed cup</b>				FLAMMABLE LIMITS		L.E.L. <b>1.5%</b>	U.E.L. <b>8.5%</b>		
	CONDITIONS OF FLAMMABILITY									
	MEANS OF EXTINCTION <b>Dry chemical, alcohol foam, carbon dioxide. Water spray may be used to cool fire-exposed bottles.</b>									
	HAZARDOUS COMBUSTION PRODUCTS <b>Toxic fumes. Dangerous when exposed to open flames or heat.</b>									
							AUTO IGNITION TEMP.		<b>315 °C</b>	
	EXPLOSION DATA		SENSITIVITY TO MECHANICAL IMPACT <b>None</b>							
		SENSITIVITY TO STATIC DISCHARGE <b>sensitive</b>								
SPECIAL FIRE FIGHTING PROCEDURES <b>In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Keep from sparks, open flame, hot surfaces, and all other sources of heat and ignition.</b>										

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REACTIVITY	STABLE	YES	CONDITIONS TO AVOID High temperature, open flame			PRODUCT NUMBER Orion 181191, 181190	
	UNSTABLE						
	INCOMPATIBILITY—MATERIALS TO AVOID <b>Acids, oxidizing agents.</b>						
	HAZARDOUS DECOMPOSITION PRODUCTS <b>Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.</b>						
HEALTH HAZARD DATA	CONDITIONS OF REACTIVITY						
	HAZARDOUS ROUTES OF ENTRY	INHALATION YES	INGESTION YES	EYE CONTACT YES	SKIN CONTACT YES	SKIN ABSORPTION YES	
	EFFECTS OF EXPOSURE (ACUTE) Burns of skin or eyes, vapours irritating to eyes, nose, throat and lungs (can cause severe damage). Coughing. Swallowing may cause severe injury or death. Avoid breathing fumes.						
	EFFECTS OF EXPOSURE (CHRONIC) Chronic inhalation may cause lung problems. Prolonged or repeated skin exposure may cause dermatitis.						
	EXPOSURE LIMITS						
	SENSITIZATION TO PRODUCT Persons with pre-existing skin or respiratory conditions may be more susceptible to the product.						
	CARCINOGENICITY						
	OTHER TOXICOLOGICAL EFFECTS						
	EMERGENCY AND FIRST AID PROCEDURES Get medical attention immediately.						
	<b>Eyes and Skin:</b> immediately flush with a stream of running water for a minimum of 15 minutes, occasionally lifting eye lid.						
	<b>Inhalation:</b> Remove victim to fresh air. Give artificial respiration if breathing has stopped.						
	<b>Ingestion:</b> Get immediate medical attention. Do not induce vomiting, give large amounts of water if conscious.						
	PREVENTIVE MEASURES	RESPIRATORY PROTECTION OSHA & ACGIH threshold limit PEL 5 ppm (TWA) skin					
		VENTILATION	LOCAL EXHAUST to control exposure limits			SPECIAL	
MECHANICAL (GENERAL)			OTHER				
HAND PROTECTION impervious gloves			EYE PROTECTION chemical goggles				
PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL Remove all ignition sources, wear protective clothing. Ventilate area. Absorb spilled material (e.g. use vermiculite, dry sand, earth). Place in fiber carton. Incinerate. Wash area with soap and water.							
WASTE DISPOSAL METHOD Dispose of at an approved landfill site or by incineration in accordance with local, provincial or federal regulations as required. To incinerate mix with flammable solvent, spray into incinerator equipped with afterburner and scrubber.							
HANDLING PROCEDURES AND EQUIPMENT NFPA Rating: Health: 3, Fire: 3, Reactivity: 0							
Protect against physical damage.							
STORAGE REQUIREMENTS Store in cool, dry, well-ventilated location, avoid fire hazards. Keep well sealed.							
SPECIAL SHIPPING INFORMATION							
PREPARATION	PREPARED BY Peter Bakker		APPROVED BY Peter Bakker				
	TITLE		TITLE		TELEPHONE		
			Chemistry Manager		(519) 941-8161		
		<i>Peter Bakker</i>		DATE November 5, 2009			
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