

MATERIAL SAFETY DATA SHEET

DATE: June 2014

SECTION 1 MATERIAL IDENTIFICATION			
CHEMICAL NAME	Iridium 192		
CHEMICAL SYNONYMS	Ir-192	CHEMICAL FAMILY	Metal – not in particulate form
MANUFACTURER		SUPPLIER	

SECTION 2 HAZARDS IDENTIFICATION				
INGREDIENT	Activity or %	TLV	Radiation Category	% TLV
Gamma-Ray Energy (keV)	662		Radiological half-life 74 days	
Specific Activity	~450 Ci/g (12162 TBq/g)		Effective half-life 110 days	
CNSC Permitted Exposures: 20 mSv/y for Radiation Workers; 1 mSv/y for General Public				
SECTION 3 PHYSICAL DATA				
BOILING POINT: 760 mm Hg (°C)	4130		SOLUBILITY IN WATER, % by weight @ 25°C	insoluble
VAPOUR PRESSURE: 20°C (mm Hg)	N/A		SPECIFIC GRAVITY (H ₂ O = 1)	22.4
VAPOUR DENSITY (air = 1)	N/A		EVAPORATION RATE (butylacetate = 1)	N/A
pH	N/A		MELTING POINT	2410 °C
APPEARANCE AND ODOUR:	Silver white metal in a sealed source.			
SECTION 4 FIRE AND EXPLOSION HAZARD DATA				
FLASH POINT (°C); TEST METHOD:		None	FLAMMABLE LIMITS	LEL UEL
AUTOIGNITION TEMPERATURE (°C)		None		
EXTINGUISHING MEDIA:	N/A.			
SPECIAL FIREFIGHTING PROCEDURES:	N/A.			
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None.			
SECTION 5 REACTIVITY DATA				
STABILITY:	STABLE	X	CONDITIONS TO AVOID:	None
	UNSTABLE	<input type="checkbox"/>		
INCOMPATIBILITY:	None.			
HAZARDOUS DECOMPOSITION PRODUCTS:				
HAZARDOUS POLYMERIZATION:	WILL NOT OCCUR	X	CONDITIONS TO AVOID:	None.
	MAY OCCUR	<input type="checkbox"/>		

N/A - Not Applicable

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SECTION 6 HEALTH HAZARD DATA	
EFFECTS OF OVEREXPOSURE:	Inhalation: Will result in increased internal radiation dose
	Ingestion: Will result in increased internal radiation dose
	Eyes: Increased radiation dose
	Skin: Will result in increased radiation dose
EMERGENCY FIRST AID PROCEDURES:	Inhalation: Remove to fresh air and stand upwind if outside. Seek medical attention for radiation intake.
	Ingestion: Drink large volumes of water. Removed from source. Seek medical attention for radiation intake.
ACCIDENTAL RELEASE MEASURES	Eyes: Flush open eye(s) continuously for 15 minutes with clean, running water. Remove from source. See Physicisan for external radiation or if irritation persists.
	Skin: Wash well with soap and water. Remove contaminated clothing. Remove from source. See Physicisan for external radiation or if irritation persists.
NOTE: IN ALL CASES, OBTAIN MEDICAL AID PROMPTLY.	
SECTION 7 SPECIAL PROTECTION INFORMATION	
VENTILATION:	Wear respiratory protection and stand upwind
RESPIRATORY PROTECTION:	Air purifying respirator with combination radio-nuclide cartridge, or SCBA where spill has occurred
PROTECTIVE CLOTHING:	Wear lead-lined aprons and gloves before handling
EYE PROTECTION:	<input type="checkbox"/> NOT NORMALLY NECESSARY <input type="checkbox"/> SAFETY GLASSES WITH SIDE SHIELDS <input type="checkbox"/> SAFETY GLASSES <input type="checkbox"/> GASTIGHT GOGGLES OR EQUIVALENT <input checked="" type="checkbox"/> CHEMICAL WORKERS GOGGLES <input type="checkbox"/> OTHER
SECTION 8 SPECIAL PRECAUTIONS	
PRECAUTIONS IN HANDLING AND STORAGE:	All shippers and consignees must possess radioisotope license and conform with all conditions of license.
OTHER PRECAUTIONS:	
SECTION 9 SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IF MATERIAL SPILLED OR LEAKED: Note also Section 7. If spill occurs, keep away from area. If in transport mode, call CANUTEC at (613) 996-6666 in Canada or USDOT at (202) 426-2675 in USA.	
SECTION 10 WASTE DISPOSAL METHOD: If on site, follow instructions on site license or as directed by local Radiation Control Officer.	
SECTION 11 HANDLING AND STORAGE: Keep away from incompatibles such as acids, oxidizing agents, etc. Keep away from high temperatures.	
SECTION 12 TOXICOLOGICAL INFORMATION: Routes of entry: Inhalation, ingestion. Slightly hazardous in case of skin or eye contact (irritant), or in case of ingestion or inhalation.	
SECTION 13 ECOLOGICAL INFORMATION: N/A	
SECTION 14 DISPOSAL CONSIDERATIONS: Must be disposed of in an approved radioactive material waste site	
SECTION 15 TRANSPORT INFORMATION: UN2916, Radioactive Material, Type B(U) Package, Class 7. Transport must take place in accordance with all applicable regulations.	
SECTION 16 REGULATORY INFORMATION: Shippers must be licensed to possess. Carriers must be certified to transport.	
SECTION 17 OTHER INFORMATION: None	

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