

# Avocado Research Chemicals Ltd - Material Safety Data Sheet 12452

1. IDENTIFICATION OF SUBSTANCE AND SUPPLIER			
Name On Label	Morpholine-4-carbonyl chloride		
Product Number	12452		
Supplier	Johnson Matthey Catalog Company Inc. 30 Bond Street, Ward Hill, Massachusetts, 01835-8099 Emergency Telephone Number: (978) 521-6300; CHEMTREC: (800) 424-9300		
Alternative Names	None in common use.		
2. COMPOSITION AND INFORMATION ON COMPONENTS			
Name	Morpholine-4-carbonyl chloride		
Minor Impurities	Not determined		
CAS No.	15159-40-7	EINECS No. 2392130	EEC No.
3. HAZARDS IDENTIFICATION			
Designation	HARMFUL ~ CORROSIVE ~ POSSIBLE CARCINOGEN		
Risk Phrases	R14	Reacts violently with water.	
	R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.	
	R34	Causes burns.	
	R40	Possible risk of irreversible effects.	
4. FIRST AID MEASURES			
Inhalation	Remove to fresh air. In cases of serious discomfort seek medical attention.		
Eye Contact	Flush with copious amounts of water for at least 15 minutes. Seek urgent medical attention.		
Skin Contact	Remove contaminated clothing. Wash affected area with soap and water. Rinse thoroughly. In case of skin damage seek urgent medical advice. Show the physician the container details.		
Ingestion	Rinse out mouth and drink lots of water. In case of tissue damage or other symptoms, seek medical attention.		
5. FIRE FIGHTING MEASURES			
Extinguishing Medium	Use fire fighting measures which suit the environment and take into account other materials which may be involved. In general, water-based extinguishers should not be used for fires involving organic materials. Use carbon dioxide or dry powder.		
Protective Equipment	Wear self-contained breathing apparatus and protective clothing.		
Hazardous Products of Combustion may include:	carbon monoxide, carbon dioxide, hydrogen chloride (hydrochloric acid), oxides of nitrogen, nitric acid, hydrogen cyanide.		
6. ACCIDENTAL RELEASE MEASURES			
Personal Protection	Avoid inhalation or contact of spilled material with skin or clothing. Wear protective equipment including rubber gloves, and eye protection. Keep unprotected persons away.		
Environmental Protection	Take precautions to ensure product does not contaminate the ground or enter the drainage system.		
Collection	Mix with vermiculite or proprietary absorbent material and transfer to sealed containers for disposal.		
7. HANDLING AND STORAGE			
Handling	Chemicals should be used only by those trained in handling potentially hazardous materials. Rubber gloves, eye protection and protective clothing should be worn. Operations should be carried out in an efficient fume hood or equivalent system.		
Storage	Store in tightly sealed containers in a cool place. Product reacts with water. Take precautions to avoid contact with atmospheric moisture.		
8. EXPOSURE CONTROLS AND PERSONAL PROTECTION			
Respiratory	Avoid inhalation of product. Handle in an efficient fume hood or equivalent system.		
Eye	Avoid eye contact. Wear safety spectacles, goggles or, for larger quantities, a full face mask.		
Hands and Body	Corrosive product. Avoid skin contact. Wear corrosive-resitant gloves and, for larger quantities, full arm and body protection. Wash hands thoroughly after handling.		

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9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance	Colorless liquid		
Physical Constants	b.p. 112-114°/10mm		
Molecular formula	C <sub>5</sub> H <sub>8</sub> ClNO <sub>2</sub>	Formula Wt.	149.58
Water solubility		Density	1.282
Flash Point	>110°		
10. STABILITY AND REACTIVITY			
Specific Hazard	Reacts violently with water.		
Incompatibilities	Strong oxidising agents.		
Decomposition	Hazardous products of decomposition may include: carbon monoxide, carbon dioxide, hydrogen chloride (hydrochloric acid), oxides of nitrogen, nitric acid, hydrogen cyanide.		
11. TOXICOLOGICAL INFORMATION			
RTECS No.	Not listed		
Acute Toxicity	LD <sub>50</sub> : No data reported Harmful by inhalation, in contact with skin and if swallowed. Causes burns. Possible risk of irreversible effects.		
Chronic Toxicity	Possible carcinogen.		
12. ECOLOGICAL EFFECTS			
General	Take care to prevent chemicals from entering the ground, water courses or drainage systems.		
13. DISPOSAL CONSIDERATIONS			
Disposal	Disposal should be via an approved contractor and should take full account of local regulations.		
14. TRANSPORT INFORMATION			
UN Number	1760		
Land Transport	ADR/RIC Code/Class	8	Packing Group II
Maritime Transport	IMDG Code/Class	8	Packing Group II
Air Transport	IATA Code/Class	8	Packing Group II
15. REGULATORY INFORMATION			
CAS No. 15159-40-7	EINECS No. 2392130	EEC No.	UN No. 1760 RTECS No. Not listed
Hazard Indication	HARMFUL ~ CORROSIVE ~ POSSIBLE CARCINOGEN		
Risk & Safety Phrases	Reacts violently with water. Harmful by inhalation, in contact with skin and if swallowed. Causes burns. Possible risk of irreversible effects. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. Wear suitable protective clothing, gloves and eye/face protection. If you feel unwell, seek medical advice (show the label where possible).		
TSCA			
16. OTHER INFORMATION			
It must be recognised that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.			
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