

HALL CHEM MFG. INC.1270 rue Nobel
Boucherville Qc J4B 5H1

Tel. : (450) 645-0296

Fax : (450) 645-0444

MATERIAL SAFETY DATA SHEET**EMERGENCY : CANUTEC (613) 996-6666****MSDS : 291-2****PRODUCT IDENTIFICATION AND USE**

NAME OF PRODUCT : Rad Gold Long Life 50-50

USE OF PRODUCT : Antifreeze

TRANSPORTATION OF DANGEROUS GOODS

SHIPPING NAME :

WHMIS CLASSIFICATION: D2A, D2B

P.N.I. :

PRIMARY CLASS : no regulated

PACKING GROUP :

SUBSIDIARY CLASS :

COMPONENTS

COMPOSITION	% V/V	CASE #	LD ₅₀ mg/k g Oral/rat	LC ₅₀	TLV ppm 8h
Ethylene glycol	43,5-46	107-21-1	4700		100 000mg/m ³
Diethylene glycol	0-5,0	111-46-6	12565		
Rust inhibitors					

PHYSICAL CHARACTERISTICS

PHYSICAL STATE : Liquid	APPEARANCE : Orange-red	ODOR : Typical	ODORTRESHOLD : Not available
VAPOR TENSION : Not available	VAPOR DENSITY (air =1) : 1	EVAPORATING RATE : (Butyl acetate =1): 0,01	
BOILING RANGE : 106°C (223°F)	FREEZING POINT : -37°C	pH : 9.0 – 10.0	
DENSITY (20°C) : 1,065	DISTRIBUTION FACTOR WATER/OIL : Not available	SOLUBILITY IN WATER (25°C) : 100%	

REACTIVITY DATA

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ABSORPTION WAYS			CONTACT				
SKIN	✓	INHALATION	✓	WITH SKIN	✓	EYES	✓

EFFECTS OF EXPOSURE TO PRODUCT : Product can irritate mucus glands. High doses can provoke headaches, drowsiness, nausea, dizziness and fainting. Inhalation may aggravate cases of emphysema and bronchitis. Repeated contact with skin provokes irritations, dryness of the skin and cracking of the skin.**PREVENTIVE MEASURES****PROTECTIVE EQUIPMENT :** Gloves, security glasses and protective apron.**GLOVES :** PVC, nitrile, rubber.**RESPIRATORY SYSTEM :** Necessary if limit of exposure is exceeded**OCULAR INSTRUMENT :** Chemical splash goggles**CLOTHING :** Protective apron**TECHNICAL CONTROL :** Ventilation**PROCEDURE IN CASE OF LEAKS/SPILLS :** Contain with an inert absorbent. Put the waste in a closed container until future disposal. Do not throw in the sewers or garbage.**HANDLING :** Handle and open the containers with precaution. Do not weld or cut the containers because they can contain residues from flammable vapors. Do not heat or pressurize containers. Do not put any non-combustible material in empty containers, violent chemical reactions can occur. Do not smoke, eat or drink on working areas. Respect a good personal hygiene after manipulation of the product. Keep containers electrically grounded specially during manipulation or while transferring. The material can accumulate static.

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WASTE DISPOSAL : Do not dispose in sewers nor in regular trashes.

STORAGE : In a cool, dry and well ventilated area. Keep away from incompatible material and from sources of ignition (naked flames, sparks, electricity). Keep the containers grounded especially during pumping and transfer operations.

FIRST AID

SKIN : Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention.

EYES : Flush gently water yours eyes while holding eyelids apart; seek immediate medical attention.

INHALATION : If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen. Contact a physician.

INGESTION : Do not induce vomiting. If spontaneous vomiting occurs, avoid the victim from inhaling its vomit. Keep victim at rest and warm. Call for medical assistance immediately and/or bring the victim to the hospital or the nearest poison center.

NOTE TO PHYSICIAN : This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, use three to four 1-ounce oral "shots" of 86-proof whiskey before or during transport to the hospital.

INFORMATION ON THE M.S.D.S. PREPARATION

PREPARED BY :
Hall Chem Mfg. Inc.

TELEPHONE : (514) 645-0296

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NOTE :

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