



Common Name: FREQUENCY 64

Manufacturer: JOHNSON DIVERSEY

MSDS Revision Date: 2/18/2009

Grainger Item Number(s): 2VRT3, 2VRT4, 2VRT5, 3UT46, 3UT47, 3UT48, 3UT49, 5TN95

Manufacturer Model Number(s):

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RAMSEY (TM/MC)
BY JOHNSON DIVERSEY

MATERIAL SAFETY DATA SHEET

FREQUENCY 64

	HMIS	NFPA
HEALTH	3	3
FIRE HAZARD	0	0
REACTIVITY	0	0

PERSONAL PROTECTIVE EQUIPMENT:
SAFETY GLASSES
GLOVES
BOOTS

VERSION NUMBER: 3

PREPARATION DATE: 2009-02-18

1. PRODUCT AND COMPANY IDENTIFICATION



PRODUCT NAME: FREQUENCY 64
MSDS #: MS0127118

PRODUCT CODE: 4555994, 4556006, 4555986, 4556022, 4556014

RECOMMENDED USE:
DISINFECTANT. CLEANING PRODUCT. THIS PRODUCT IS INTENDED TO BE DILUTED PRIOR TO USE.

MANUFACTURER, IMPORTER, SUPPLIER:

US HEADQUARTERS:
JOHNSON DIVERSEY, INC.
8310 16TH ST.
STURTEVANT, WISCONSIN 53177-1964

RAMSEY INFORMATION PHONE: 1-800-421-2768

MSDS INTERNET ADDRESS: WWW.RAMSEYCOMPANY.COM

CANADIAN HEADQUARTERS:
JOHNSON DIVERSEY - CANADA, INC.
2401 BRISTOL CIRCLE
OAKVILLE ONTARIO L6H 6P1

PHONE: 1-800-668-3131

EMERGENCY TELEPHONE NUMBER:
1-800-851-7145 (U.S.)
1-651-917-6133 (INT'L)

2. HAZARDS IDENTIFICATION



EMERGENCY OVERVIEW:
DANGER. CORROSIVE. CAUSES SKIN AND EYE BURNS. HARMFUL OR FATAL IF SWALLOWED.

PRINCIPLE ROUTES OF EXPOSURE:
EYE CONTACT. SKIN CONTACT. INHALATION. INGESTION.

EYE CONTACT: CORROSIVE. CAUSES PERMANENT EYE DAMAGE, INCLUDING BLINDNESS.

SKIN CONTACT: CORROSIVE. CAUSES PERMANENT DAMAGE.

INHALATION:
MAY CAUSE IRRITATION AND CORROSIVE EFFECTS TO NOSE, THROAT AND RESPIRATORY TRACT.

INGESTION: CORROSIVE. CAUSES BURNS TO MOUTH, THROAT AND STOMACH.

3. COMPOSITION/INFORMATION ON INGREDIENTS



HAZARDOUS INGREDIENTS:

INGREDIENT(S)	CAS #	WEIGHT %	LD50 ORAL - RAT (MG/KG)
N-ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE	68424-85-1	2.0475	426
DIDECYL DIMETHYL AMMONIUM CHLORIDE	7173-51-5	2.176	84
ETHYL ALCOHOL	64-17-5	0.1 - 1.5 %	7060

INGREDIENT(S)	LD50 DERMAL - RABBIT	LC50 INHALATION - RAT
N-ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE	NOT AVAILABLE	NOT AVAILABLE
DIDECYL DIMETHYL AMMONIUM CHLORIDE	NOT AVAILABLE	NOT AVAILABLE

ETHYL ALCOHOL NOT AVAILABLE NOT AVAILABLE

4. FIRST AID MEASURES



EYE CONTACT:
HOLD EYE OPEN AND RINSE SLOWLY AND GENTLY WITH WATER FOR 15-20 MINUTES.
REMOVE CONTACT LENSES, IF PRESENT, AFTER THE FIRST 5 MINUTES, THEN
CONTINUE RINSING EYES. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:
TAKE OFF CONTAMINATED CLOTHING. IMMEDIATELY FLUSH WITH PLENTY OF WATER
FOR 15-20 MINUTES . GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:
IF BREATHING IS AFFECTED, REMOVE TO FRESH AIR. IF PERSON IS NOT BREATHING,
CALL 911 OR AN AMBULANCE AND THEN GIVE ARTIFICIAL RESPIRATION, PREFERABLY
BY MOUTH TO MOUTH, IF POSSIBLE.

INGESTION:
CALL MEDICAL ATTENDANT, DOCTOR, OR POISON CONTROL CENTER IMMEDIATELY. HAVE
PERSON SIP A GLASS OF WATER IF ABLE TO SWALLOW. DO NOT INDUCE VOMITING
UNLESS TOLD TO DO SO BY A POISON CONTROL CENTER OR DOCTOR. NEVER GIVE
ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

NOTES TO PHYSICIAN:
PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE.

AGGRAVATED MEDICAL CONDITIONS:
INDIVIDUALS WITH CHRONIC RESPIRATORY DISORDERS SUCH AS ASTHMA, CHRONIC
BRONCHITIS, EMPHYSEMA, ETC., MAY BE MORE SUSCEPTIBLE TO IRRITATING EFFECTS.

5. FIRE-FIGHTING MEASURES



SUITABLE EXTINGUISHING MEDIA:
THE PRODUCT IS NOT FLAMMABLE. EXTINGUISH FIRE USING AGENT SUITABLE FOR
SURROUNDING FIRE.

SPECIFIC HAZARDS: NONE KNOWN.

UNUSUAL HAZARDS: CORROSIVE MATERIAL (SEE SECTIONS 8 AND 10).

SPECIFIC METHODS: NONE KNOWN.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:
AS IN ANY FIRE, WEAR SELF-CONTAINED BREATHING APPARATUS PRESSURE-DEMAND,
MSHA/NIOSH (APPROVED OR EQUIVALENT) AND FULL PROTECTIVE GEAR

EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS:
NO INFORMATION AVAILABLE

6. ACCIDENTAL RELEASE MEASURES



PERSONAL PRECAUTIONS:
PUT ON APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (SEE SECTION 8.).

ENVIRONMENTAL PRECAUTIONS AND CLEAN-UP METHODS:
MATERIAL IS TOXIC TO FISH. DO NOT DISCHARGE INTO LAKES, STREAMS, PONDS,
OR PUBLIC WATER UNLESS IN ACCORDANCE WITH AN NPDES PERMIT. USE APPROPRIATE
CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

7. HANDLING AND STORAGE



HANDLING:
AVOID CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TASTE OR SWALLOW. AVOID
BREATHING VAPORS OR MISTS. USE ONLY WITH ADEQUATE VENTILATION. REMOVE AND
WASH CONTAMINATED CLOTHING AND FOOTWEAR BEFORE RE-USE. WASH THOROUGHLY
AFTER HANDLING. PRODUCT RESIDUE MAY REMAIN ON/IN EMPTY CONTAINERS. ALL
PRECAUTIONS FOR HANDLING THE PRODUCT MUST BE USED IN HANDLING THE EMPTY

CONTAINER AND RESIDUE. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

STORAGE:
PROTECT FROM FREEZING. KEEP TIGHTLY CLOSED IN A DRY, COOL AND WELL-
VENTILATED PLACE. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION



ENGINEERING MEASURES TO REDUCE EXPOSURE:
GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT TO CONTROL AIRBORNE LEVELS.
RESPIRATORY PROTECTION IS NOT REQUIRED IF GOOD VENTILATION IS MAINTAINED.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: CHEMICAL-SPLASH GOGGLES.

HAND PROTECTION: CHEMICAL-RESISTANT GLOVES

SKIN AND BODY PROTECTION:
PROTECTIVE FOOTWEAR. IF MAJOR EXPOSURE IS POSSIBLE, WEAR SUITABLE
PROTECTIVE CLOTHING AND FOOTWEAR.

RESPIRATORY PROTECTION:
IN CASE OF INSUFFICIENT VENTILATION WEAR SUITABLE RESPIRATORY EQUIPMENT.
A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND
ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS
WARRANT A RESPIRATOR'S USE.

HYGIENE MEASURES:
HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE

INGREDIENT(S)	CAS #	ACGIH	OSHA	MEXICO
ETHYL ALCOHOL	64-17-5	1000 PPM (TWA)	1900 MG/M3 (TWA) 1000 PPM (TWA)	1000 PPM (TWA) 1900 MG/M3 (TWA)

9. PHYSICAL AND CHEMICAL PROPERTIES



PHYSICAL STATE: LIQUID

pH: 10.0

APPEARANCE: AQUEOUS SOLUTION

COLOR: GREEN

ODOR: FRESH

SPECIFIC GRAVITY: 1.002

DENSITY: 8.34 LBS/GAL

VOC: 0.62%*

FLASH POINT:
>200 DEG. F
>93.3 DEG. C

SOLUBILITY: COMPLETELY SOLUBLE

VISCOSITY: NO INFORMATION AVAILABLE

BULK DENSITY: NO INFORMATION AVAILABLE

DILUTION pH: NO INFORMATION AVAILABLE.

VAPOR DENSITY: NO INFORMATION AVAILABLE

EVAPORATION RATE: NO INFORMATION AVAILABLE

BOILING POINT/RANGE: NOT DETERMINED

MELTING POINT/RANGE: NOT DETERMINED

DECOMPOSITION TEMPERATURE: NOT DETERMINED

AUTOIGNITION TEMPERATURE: NO INFORMATION AVAILABLE

PARTITION COEFFICIENT (n-OCTANOL/WATER): NO INFORMATION AVAILABLE

SOLUBILITY IN OTHER SOLVENTS: NO INFORMATION AVAILABLE

ELEMENTAL PHOSPHORUS: 0% P

* - TITLE 17, CALIFORNIA CODE OF REGULATIONS, DIVISION 3, CHAPTER 1, SUBCHAPTER 8.5, ARTICLE 2, CONSUMER PRODUCTS, SECTIONS 94508

10. STABILITY AND REACTIVITY



STABILITY: THE PRODUCT IS STABLE

POLYMERIZATION: HAZARDOUS POLYMERIZATION DOES NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS: NONE REASONABLY FORESEEABLE.

CONDITIONS TO AVOID: DO NOT FREEZE.

11. TOXICOLOGICAL INFORMATION



ACUTE TOXICITY: CORROSIVE

COMPONENT INFORMATION: SEE SECTION 3

CHRONIC TOXICITY: NONE KNOWN

SPECIFIC EFFECTS:

CARCINOGENIC EFFECTS: NONE KNOWN

MUTAGENIC EFFECTS: NONE KNOWN

REPRODUCTIVE TOXICITY: NONE KNOWN

TARGET ORGAN EFFECTS: NONE KNOWN

HAZARDOUS INGREDIENTS:

INGREDIENT(S)	CAS #	NTP	IARC	OSHA
ETHYL ALCOHOL	64-17-5	X		X

12. ECOLOGICAL INFORMATION



ENVIRONMENTAL INFORMATION: NO DATA AVAILABLE

13. DISPOSAL CONSIDERATIONS



DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL

PESTICIDE STORAGE:

STORE IN ORIGINAL CONTAINER IN AREAS INACCESSIBLE TO CHILDREN. OPEN DUMPING IS PROHIBITED. DO NOT REUSE EMPTY CONTAINER

PESTICIDE DISPOSAL:

PESTICIDE WASTES ARE ACUTELY HAZARDOUS. IMPROPER DISPOSAL OF EXCESS PESTICIDE, SPRAY MIXTURE, OR RINSATE IS A VIOLATION OF FEDERAL LAW. IF THESE WASTES CANNOT BE DISPOSED OF BY USE ACCORDING TO LABEL INSTRUCTIONS, CONTACT YOUR STATE PESTICIDE OR ENVIRONMENTAL CONTROL AGENCY OR THE HAZARDOUS WASTE REPRESENTATIVE AT THE NEAREST EPA REGIONAL OFFICE FOR GUIDANCE.

CONTAINER DISPOSAL:

TRIPLE RINSE (OR EQUIVALENT). THEN OFFER FOR RECYCLING OR RECONDITIONING, OR PUNCTURE AND DISPOSE OF IN A SANITARY LANDFILL, OR INCINERATE, OR, IF ALLOWED BY STATE AND LOCAL AUTHORITIES BURN. IF BURNED, STAY OUT OF SMOKE

14. TRANSPORT INFORMATION



DOT/TDG:
PLEASE REFER TO THE BILL OF LADING/RECEIVING DOCUMENTS FOR UP TO DATE
SHIPPING INFORMATION

15. REGULATORY INFORMATION



INTERNATIONAL INVENTORIES:

ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE FOLLOWING INVENTORIES:
U.S.A. (TSCA), CANADA (DSL/NDL), CHINA (IECSC).

U.S. REGULATIONS:

EPA REG. NO.: 70627-23-69910

CALIFORNIA PROPOSITION 65:
THIS PRODUCT IS NOT SUBJECT TO THE REPORTING REQUIREMENTS UNDER
CALIFORNIA'S PROPOSITION 65

CERCLA/SARA: NONE

CAA HAP/CAA ODS/CWA PRIORITY POLLUTANTS: NONE

SARA 311/312 HAZARD CATEGORIES:
IMMEDIATE (X)
DELAYED ()
FIRE ()
REACTIVITY ()
SUDDEN RELEASE OF PRESSURE ()

16. OTHER INFORMATION



REASON FOR REVISION: NOT APPLICABLE

PREPARED BY: NAPRAC

ADDITIONAL ADVICE: NONE

NOTICE TO READER:
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