

SAFETY DATA SHEET

Randolph Products Company

MIL-P-23377F TYPE 1 CLASS 1 PART A-GAL

Date Printed: 5/28/2015

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1. Product and Company Identification

Product Name : MIL-P-23377F TYPE 1 CLASS 1 PART A-GAL

Product Code : 233771-GL

Recommended Use: Please refer to Product Information/Technical Data Sheet.

Company Identification:

Randolph Products Company

33 Haynes Circle

Chicopee, MA 01020

Information Phone: 413-592-4191

Emergency Phone: ChemTel 800-255-3924

2. Hazards Identification

EMERGENCY OVERVIEW

DANGER

Highly Flammable Liquid & Vapor, Category 2

Acute Toxicity, Category 4

Skin Irritation, Category 2

Eye Irritation, Category 2B

Chronic Toxicity, (Toxic to Reproduction) Category 1A

Aspiration Hazard, Category 1

Chronic Toxicity, Carcinogen (May cause cancer), Category 1



Potential Health Effects

Eye:

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Causes eye irritation.

Skin:

Strontium Chromate may cause allergic reactions, nausea, vomiting, kidney damage, coma. Causes skin irritation.

Ingestion:

May be fatal if swallowed and enters airways.

If swallowed, immediately call a poison control center or physician. Do NOT induce vomiting.

Inhalation:

CONTAINS HEXAVALENT CHROMIUM. Chromates may cause nasal septum perforation. Hexavalent Chrome is listed as a carcinogen by the IARC and NTP and is on ACGIH's A1 list. Repeated, long term exposure to dust and mists in the chromate product industries is associated with an increase in respiratory tract cancer in humans. Prolonged inhalation may cause liver damage. Adverse effects to kidneys, blood system, heart/cardiovascular, respiratory, skin disorders and allergies, including immune system sensitization. May cause drowsiness or dizziness.

Chronic (Cancer) Information:

Hexavalent Chrome is listed as a carcinogen by the IARC and NTP and is on ACGIH's A1 list. Repeated, long term exposure to dust and mists in the chromate product industries is associated with an increase in respiratory tract cancer in humans. IARC: A component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.

ACGIH: A component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP: A component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Teratology (Birth Defects) Information:

May damage fertility or the unborn child.

Reproduction Information:

Contains toluene, which may harm the developing fetus if a pregnant woman is overexposed. Toluene may affect the liver and kidneys. Contains xylene, which may harm the developing fetus if a pregnant woman is overexposed. Xylene may

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affect the liver, kidneys, G.I., blood.

Aggravation of Pre-Existing Conditions:
Dermatitis or other skin conditions.

3. Composition/Information on Ingredients

Component	CAS#	% by Wt.
*#+ STRONTIUM CHROMATE	7789-06-2	19.914
ACGIH TLV: 0.0005 mg/m3 -- as Cr		
ACGIH TLV: 0.01 mg/m3 -- Chromium (VI) insoluble cpds., as Cr		
OSHA PEL: 0.005 mg/m3 TWA, Chromium (VI)		
*#+ TOLUENE	108-88-3	17
ACGIH TLV: 50 PPM TWA (SKIN)		
ACGIH TLV: 150 PPM STEL (SKIN)		
OSHA PEL: 200 PPM TWA		
OSHA PEL: 300 PPM CEILING		
METHYL ETHYL KETONE	78-93-3	14
ACGIH: 200 PPM TWA		
OSHA: 200 PPM TWA		
TALC	14807-96-6	12
ACGIH TLV: 2 MG/M3 TWA, RESPIRABLE DUST		
OSHA PEL: 20 MPPCF TWA		
*+ XYLENE	1330-20-7	6
ACGIH: 100 PPM TWA		
OSHA: 100 PPM TWA		
HYDRATED AMORPHOUS SILICA	112926-00-8	4
ACGIH: 10 MG/M3 TWA, TOTAL DUST		
OSHA: 6 MG/M3 TWA		
1-METHOXY 2-PROPANOL	107-98-2	3
ACGIH: 100 PPM TWA		
OSHA: 100 PPM TWA		
ACGIH: 150 PPM STEL		
OSHA: 150 PPM CEILING		
* 2-BUTOXY ETHANOL	111-76-2	2
ACGIH TLV: 20 PPM TWA		
OSHA PEL: 50 PPM TWA (SKIN)		
OSHA VPEL: 25 PPM TWA (SKIN)		
N-BUTYL ACETATE	123-86-4	1
ACGIH: 150 PPM TWA		
OSHA: 150 PPM TWA		
ACGIH: 200 PPM STEL		
OSHA: 200 PPM CEILING		

4. First Aid Measures

Eyes:

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If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Skin:

If on skin: wash with plenty of soap & water. If skin irritation occurs: Get Medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Ingestion:

May be fatal if swallowed and enters airways.

If swallowed: Immediately call a poison center/physician.

Do NOT induce vomiting.

Inhalation:

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a poison control center/get medical attention if you feel unwell.

Note to Physicians:

Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy. This product contains one or more heavy metals, or heavy metal-containing compounds. The appropriate treatment following heavy metal intoxication is specific; therefore, consult a poison control center.

Aspiration hazard - do not induce vomiting

5. Fire Fighting Measures

Flammable Properties:

Flash Point: 20 F

Method:

Explosive Limits:

Lower explosive limit: 1.0

Upper explosive limit: 13.8

Autoignition Temperature:

INFORMATION NOT AVAILABLE.

Hazardous Combustion Products:

Smoke, soot and carbon dioxide, carbon monoxide.

Extinguishing Media:

Dry chemical, CO₂, Halon, Foam

Firefighting Procedures:

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

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Unusual Fire and Explosion Hazards: High temperatures can cause sealed containers to rupture due to a build up of internal pressure. Cool with water spray. Vapors are heavier than air and can travel some distance away and flash back.

Sensitivity to Static Discharge: Material may accumulate a static charge which could act as an ignition source.

Precautions should be taken when pouring to minimize splash/free fall.

6. Accidental Release Measures

Small Spill:

See Information for Large Spill, below:

Large Spill:

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental Precautions:

INFORMATION NOT AVAILABLE.

Methods/Materials for Containment and Cleaning Up:

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/state/federal regulations.

7. Handling and Storage

Handling:

Keep away from heat, sparks, open flames, hot surfaces. NO SMOKING. Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/processing equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wear protective gloves/eye protection/face protection.

Storage:

Prevent unauthorized access.

Store in a well ventilated place.

Keep container tightly closed.

Keep cool.

8. Exposure Controls/Personal Protection

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Airborne Exposure Limits:

SEE SECTION 3 FOR THIS INFORMATION

Engineering Controls:

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used.

Ventilation rates should be matched to conditions.

Ventilation should be explosion proof.

Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, spray painting, mechanical generation of dusts, heating, drying, etc.

Personal Protective Equipment

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be

worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance

with OSHA Standard 63 CFR 1152, January 8, 1998. Respirator type: Organic Vapor.

Skin Protection:

Wear impervious gloves to prevent skin contact.

Recommended Decontamination Facilities: eye bath, washing facilities, safety shower.

Eye Protection:

Chemical safety goggles or glasses with side shields.

9. Physical and Chemical Properties

Boiling Point: 175 F

Melting Point:

INFORMATION NOT AVAILABLE.

Freezing Point: n/a

Vapor Pressure:

Information not available for mixture

Vapor Density:

HEAVIER THAN AIR

Solubility in Water:

NEGLIGIBLE

Evaporation Rate: SLOWER THAN ETHER

Specific Gravity: 1.254

Coating VOC: 4.48 lb/gal

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Material VOC: 4.48 lb/gl

Odor:

Mild solvent odor.

Appearance:

Liquid.

Partition Coefficient:

INFORMATION NOT AVAILABLE.

10. Stability and Reactivity

Chemical Stability (Conditions to Avoid):

Stable under normal storage/use conditions.

Incompatibility:

Avoid strong oxidizing agents, acids and alkalies.

Hazardous Decomposition Products:

INFORMATION NOT AVAILABLE.

Hazardous Polymerization:

Will not occur under normal conditions.

11. Toxicological Information

Eye Irritation/Damage:

Component 1330-20-7:

Mild eye irritation, Category 2B

Component 108-88-3:

Mild eye irritation, Category 2B

Component 110-43-0:

Mild eye irritation, Category 2b

Component 7789-06-2:

Mild eye irritation, Category 2b

Skin Irritation/Damage:

Component 1330-20-7:

LD50: 15,433, rabbit. Category 5.

Mild irritation to skin. Category 2.

Component 108-88-3:

Moderate skin irritation, Category 2

LD50: 12124 mg/kg, rabbit

Component 110-43-0:

LD50: >2000 mg/kg, rat. Category 5

Component 7789-06-2:

LD50: No data

Mild skin irritation.

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Acute Oral Toxicity:

Component 1330-20-7:

LD50: 5000 mg/kg, rat. Category 5

Component 108-88-3:

LD50: 2600 mg/kg, rat. Category 5

Component 110-43-0:

LD50: 1670 mg/kg, rat. Category 4

Component 123-86-4:

LD50: 10,700 mg/kg, rat. Category 5

Component 7789-06-2:

LD50: 3118 mg/kg, rat. Category 5

Component 107-98-2:

LD50: 7200 mg/kg, rat. Category 5

Component 111-76-2:

LD50: 1300 mg/kg, rat. Category 4

Acute Inhalation Toxicity:

Component 1330-20-7:

LD50: 18.8-25.9 mg/L, rat. Category 4

Component 108-88-3:

LD50: 8,000 mg/kg, rat. Category 5

Component 110-43-0:

LD50: >16.7 mg/kg, rat. Category 4

Component 7789-06-2:

no data

Respiratory/Skin Sensitization:

Component 1330-20-7:

No evidence of respiratory or skin sensitization.

Component 108-88-3:

No evidence of respiratory or skin sensitization.

Component 110-43-0:

No evidence of respiratory or skin sensitization.

Component 7789-06-2:

Caused skin sensitization in animal studies. ACUTE OR CHRONIC OVEREXPOSURE TO CHROMATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION.

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Carcinogenicity:

Component 1330-20-7:

Not listed as a carcinogen by IARC, NTP, OSHA or ACGIH.

Component 78-93-3:

Not listed as a carcinogen by IARC, NTP, OSHA or ACGIH

Component 110-43-0:

Not listed as a carcinogen by IARC, NTP, OSHA or ACGIH.

Component 7789-06-2:

Listed by IARC as a group 1 carcinogen (carcinogenic to humans), and as a known carcinogen by NTP. GHS Category 1A.

Reproductive Toxicity:

Component 1330-20-7:

Known human reproductive toxicant; Category 1A

Component 108-88-3:

Known human reproductive toxicant; Category 1A

Component 110-43-0:

No evidence of human reproductive toxicity.

Component 7789-06-2:

No data

Germ Cell Mutagenicity:

Component 1330-20-7:

No data

Component 108-88-3:

No data

Component 110-43-0:

No data

Component 7789-06-2:

No data

Aspiration Toxicity:

Component 1330-20-7:

Aspiration Hazard; Category 1

Component 108-88-3:

Aspiration Hazard; Category 1

Component 110-43-0:

Not classified as an Aspiration Hazard.

Component 123-86-4:

Not classified as an Aspiration Hazard.

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Component 7789-06-2:
Not classified as an Aspiration Hazard.
Component 107-98-2:
Not classified as an Aspiration Hazard.
Component 111-76-2:
Aspiration Hazard; Category 1

STOT-single exposure
Component 1330-20-7:
No data
Component 108-88-3:
No data
Component 110-43-0:
No data

Component 123-86-4:
No data Component 7789-06-2:
No data
Component 107-98-2:
No data Component 111-76-2:
No data

STOT-repeated exposure
Component 1330-20-7:
No data
Component 108-88-3:
No data
Component 110-43-0:
No data

Component 123-86-4:
No data
Component 7789-06-2:
No data
Component 107-98-2:
No data
Component 111-76-2:
No data

Routes of Exposure:
Inhalation of vapors, skin/eye/mucous membrane absorption, ingestion.

12. Ecological Information

Environmental Toxicity:
Component 1330-20-7:
LC50: 8.4 mg/l (fish); EC50: 9.55 mg/l (daphnia); EC50: 3.2 mg/l (algae)

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Component 108-88-3:

LC50: 5.8 mg/l (fish); EC50: 6 mg/l (daphnia)

Component 110-43-0:

LC50: 131 mg/l (fish); EC50: >90.1 mg/l (daphnia); EC50: 98.2 mg/l (algae);

EC50: <10 mg/l (bacteria)

Component 123-86-4:

LC50: 100 mg/l (fish); EC50: 72.8-205 mg/l (daphnia)

Component 7789-06-2:

No data

Persistence & degradability:

Component 1330-20-7:

Readily biodegradable

Component 108-88-3:

No Data

Component 110-43-0:

Readily biodegradable

Component 123-86-4:

No Data

Component 7789-06-2:

Not readily biodegradable

Bioaccumulative potential:

Component 1330-20-7:

Not expected to bioaccumulate

Component 108-88-3:

Not expected to bioaccumulate

Component 110-43-0:

No Data

Component 123-86-4:

No Data

Component 7789-06-2:

No data

Mobility in soil:

Component 1330-20-7:

No data

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Component 108-88-3:

No data

Component 110-43-0:

No data

Component 123-86-4:

No data

Component 7789-06-2:

No data

Other Adverse Ecological Effects:

Component 1330-20-7:

Toxic to aquatic life with long lasting results.

Component 108-88-3:

Toxic to aquatic life with long lasting results.

Component 7789-06-2:

Very Toxic to aquatic organisms

13. Disposal Considerations

Waste Disposal Method:

Discharge, treatment or disposal is subject to national, state, or local laws.

When a decision is made to discard this

material as supplied, it meets RCRA's characteristic definition of ignitability.

The toxicity characteristic (TC) has

not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

Federal Regulations may apply to empty container. State and/or local

regulations may be different.

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Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability: (1) recycle or rework, if feasible; (2) incinerate at an authorized facility; or (3) treat at an acceptable waste treatment facility.

Be sure to contact the appropriate government environmental agencies if further guidance is required.

14. Transport Information

Domestic (Land, DOT), International (Water, IMO/IMDG), International (Air, ICAO)
Road and Rail (ADR/RID), Air (ICAO/IATA), Vessel (IMO/IMDG):

DOT (USA) Shipping Name: Paint

UN/NA ID No: UN1263

Hazard Class: Class 3 (IATA/49CFR)

Packing Group: II

Environmental Hazards:

INFORMATION NOT AVAILABLE.

Marine Pollutant:

Components of this product do not appear on the list of Marine Pollutants (49CFR 172.101)

Special Precautions for User:

INFORMATION NOT AVAILABLE.

15. Regulatory Information

U.S. Federal Regulations:

TSCA: All components of this material are on the US TSCA 8(b) Inventory or are exempt from listing.

OSHA:

This product is hazardous under OSHA's Hazard Communication Std.

CERCLA: SARA Hazard Category:

INFORMATION NOT AVAILABLE.

Section 313:

"*" Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

International Regulations:

Canadian WHMIS:

INFORMATION NOT AVAILABLE.

Canadian Environmental Protection Act (CEPA):

INFORMATION NOT AVAILABLE.

EINECS:

INFORMATION NOT AVAILABLE.

State Regulations:

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"#" Indicates a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

"+" Indicates a Clean Air Act Hazardous Air Pollutant (HAP).

Volatile Organic Compounds:

COATING VOC content is being expressed as mass of VOC per unit volume of coating less water and exempt solvents, where applicable.

MATERIAL VOC content is the actual weight of VOC per unit volume.

16. Other Information

Date Revised: 05/28/15

Prepared By: Regulatory Compliance

Information Contact: Regulatory Compliance 413-592-4191 ext 106

Manufacturer Disclaimer:

USERS RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER OF LIABILITY: The information contained herein is, to the best of our knowledge and belief, accurate.

However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. These data relate only to the specific material designated herein and do not relate to use in combination with any other material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

End of Material Safety Data Sheet