RED INSULATING VARNISH **4228**

Safety Data Sheet

Section 1: Product and Company Identification

Product Identifier and Other Means of Identification

Product Name: 4228 Red Insulating Varnish **MSDS Code:** 4228

Related Part #: 4228-55ML, 4228-225ML, 4228-945ML, 4228-1G

Recommended Use and Restriction on Use

Use: Protective and electrically insulating enamel paint

Uses Advised Against: Not applicable

Details of Manufacturer or Importer

Manufacturer

MG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA

☎ 1-800-340-0772
FAX 1-800-340-0773
E-MAIL: support@mgchemicals.com
WEB www.mgchemicals.com

MG Chemicals (Head Office)
9347-193 Street
Surrey, British Columbia V4N 4E7
CANADA

☎ 1-905-331-1396
FAX 1-905-331-2682
E-MAIL: info@mgchemicals.com

E-MAIL (Competent Person): sds@mgchemicals.com

Emergency Phone Number

USA or CANADA: Call CHEMTREC ☎: 1-800-424-9300
(**For hazardous material incidents ONLY**—leaks, spills, fires, exposures or accidents)

CANADA: Call CANUTEC ☎: 1-613-996-6666 or *666 on cellular phones, Collect 24/7
(**For emergencies involving dangerous goods**)

Section 2: Hazards Identification

Classification of Hazardous Chemical

WHMIS Classification

B2 – Flammable Liquid; D2B – Toxic Material (Skin/eye irritation)

GHS Categories

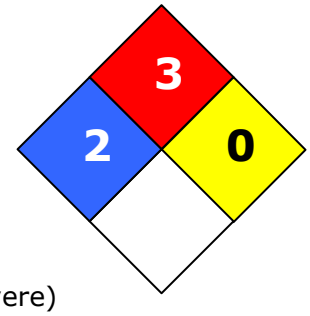
Criteria		Category	Signal Word	Pictograms
Flammable liquid		3	Warning	
Skin irritation		2	Warning	
Eye irritation		2B	Warning	
Specific target organ toxicity	Single exposure	3	Warning	
Carcinogenicity		2	Warning	
Environmental Hazard	Acute Aqua. Tox.	2	Warning	No Symbol mandated

Other Classifications

HMIS® RATING

HEALTH:	**2**
FLAMMABILITY:	**3**
PHYSICAL HAZARD:	**0**
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Label Elements

Signal Word	**DANGER**
Pictograms	**Hazard Statements**
	H226: Flammable liquid and vapor
	H315: Causes skin irritation H320: Causes eye irritation H336: May cause drowsiness and dizziness
	H351: Suspected of causing cancer
No Symbol Mandated	H401: Toxic to aquatic life
	Precautionary Statements
	P102: Keep out of reach of children. P202: Do not handle until all safety precautions have been read and understood. P280: Wear protective gloves/eye protection P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking. P260 + P271: Do not breathe fume/gas/vapors/spray. Use only outdoors or in well ventilated area. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302 + P361 + P352: IF ON SKIN: Take off immediately all contaminated clothing. Wash with plenty of water.

Other Hazards

Repeated exposure may cause skin dryness or cracking.

Exposure Routes and Symptoms Summary

Eyes	Causes moderate eye irritation.
Skin	Causes moderate skin irritation.
Inhalation	May cause irritation of nose and throat.
Ingestion	Not classifiable
Chronic	Prolonged or repeated exposure may cause skin dryness and cracking, defat skin, and local redness and discomfort. Ethylbenzene is a possible carcinogen to humans.

Section 3: Hazardous Ingredients

CAS #	Chemical Name	Wt%
1330-20-7	xylene	15–40%
1332-37-2	iron oxide	10-20%
100-41-4	ethylbenzene	3—6%
1309-37-1	red iron (III) oxide	1–5%

Section 4: First Aid Measures

Exposure Condition	*GHS Code: Precautionary Statement*
IF IN EYES	P305
Symptoms	Immediate: *mild irritation, redness, pain*
Response	P351: Rinse cautiously with water for several minutes. P338: Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists	P310: Get medical advice/attention
IF ON SKIN	P302
Symptoms	Immediate: *irritation, dry skin*
Response	P352: Wash with plenty of water. P362+P364: Take off contaminated clothing and wash before reuse.
If skin irritation or rash occurs	P310: Get medical advice/attention
IF INHALED	P304
Symptoms	Immediate: *irritation, headache, drowsiness, dizziness, cough*
Response	P340: Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing.
If feeling unwell	P312: Call a POISON CENTRE/doctor
IF SWALLOWED	P301
Symptoms	Immediate: *Irritation, burning sensation, abdominal pain*
Response	P330: Rinse mouth. P331: Do NOT induce vomiting.
If feeling unwell	P312: Call a POISON CENTRE/doctor

Note: GHS codes and corresponding precaution statements are used when available.

Section 5: Fire Fighting Measures

Auto-ignition Temperature	Not available	**Flash Point** [a)]	15 °C [59 °F]	**LFL [LEL]**[b)]	1% (v)
				UFL [UEL]	7% (v)

In case of fire	P370
Response	P378: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Use water spray to cool containers.
Combustion Products	Produces CO and CO_2.
Fire-Fighter	Wear self-contained breathing apparatus for fire fighting
General Information	Vapors may accumulate in low-lying areas. They can cause flash fire or ignite explosively.

Note: The GHS codes and the GHS precaution statements are used. The format is *GHS Codes: Statements*.

a) Closed cup

b) LFL = Lower Flammability [or Explosion] Limit (in volume %);
UFL = Upper Flammability [or Explosion] Limit (in volume %)

Section 6: Accidental Release Measures

Personal Protection: See Section 8. Avoid breathing the mist/vapors.

Containment Remove all sources of ignition.

Cleaning Collect liquid in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wipe up further residue with paper towel dampened with solvent and place dirty towels in container. Wash spill area with soap and water to remove the last traces of residue.

RECOMMENDATION: Use a grounded stainless steel or carbon steel container.

Disposal Dispose of spill waste according to Section 13.

Section 7: Handling and Storage

Prevention P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P262: Do not get in eye, on skin, or on clothing.

P260 + P271 + P284: Do not breath mist/vapors/spray. Use only outdoors or in well ventilated area. In cases of inadequate ventilation wear respiratory protection.

P270: Do not eat, drink, or smoke when using this product.

RECOMMENDATION: Avoid from temperatures greater or equal to 23 °C.

Handling P280: Wear protective gloves/clothing/eye protection.

RECOMMENDATION: Wear neoprene, butyl rubber, nitrile or other impervious gloves with breakthrough time greater than intended use period.

P264: Wash hands thoroughly after handling.

Storage P403 + P233+ P235: Keep container tightly closed. Store in a well-ventilated area. Keep cool.

RECOMMENDATION: Keep in a dry and clean area, away from incompatible substances.

Note: The GHS codes and the GHS precaution statements are used.

Section 8: Exposure Controls/Personal Protection

Routes of Entry

Eyes, ingestion, inhalation, and skin

Continued on the next page

Substances with Occupational Exposure Limit Values

Chemical Name	Country	Long Term Exposure Limits		Short Term Exposure Limits (STEL)
		ACGIH TWA	PEL	
xylene	U.S.	100 ppm	100 ppm	150 ppm
	Canada AB		100 ppm	150 ppm
	Canada BC		100 ppm	150 ppm
	Canada ON		100 ppm	150 ppm
	Canada QC		100 ppm	150 ppm
ethylbenzene	U.S.	100 ppm	100 ppm	125 ppm
	Canada AB		150 ppm	200 ppm
	Canada BC		20 ppm	—
	Canada ON		100 ppm	125 ppm
	Canada QC		100 ppm	125 ppm
iron oxide (dust)	U.S.	5 mg/m^3	5 mg/m^3	—
	Canada AB		5 mg/m^3	—
	Canada BC		5 mg/m^3	—
	Canada ON		5 mg/m^3	—
	Canada QC		5 mg/m^3	—

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH[2], OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from by RTECS database[1] of the Canadian Centre for Occupational Health and Safety (CCOHS) a data from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

Engineering Controls

Ventilation Keep airborne concentrations below exposure limits.

Personal Protective Equipment

Eye protection Wear appropriate protective eyeglasses or chemical safety goggles.

RECOMMENDATION: Use safety glasses with lateral protection (side shields).

Skin Protection Wear appropriate protective clothing to prevent skin contact.

RECOMMENDATION: Use of protective gloves in butyl rubber, latex, neoprene, or other chemically resistant gloves.

Continued on the next page

Respiratory Protection If exposed to mist, wear respirator such as a half-mask respirator.

RECOMMENDATION: Consult your local safety supply store to ensure your respirator has filter cartridges appropriate for the ingredients listed in section 3 of this MSDS, and that the respirator is fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

Section 9: Physical and Chemical Properties

Physical State	Liquid	**Odor**	aromatic	**Odor Threshold**	Not available
Appearance	Red	**Specific Gravity**	1.06	**Freezing Point**	Not available
Boiling Point	136 °C [276 °F]	**Vapor Pressure @ 16 °C**	5 mmHg [0.67 kPa]	**Evaporation Rate**	Slower than ether
Auto-ignition Temperature	Not available	**Flash Point** [a)]	15 °C [29 °F]	**Vapor Density**	Not available
Lower Flammability Limit	1%	**Upper Flammability Limit**	7%	**Decomposition Temp.**	Not available
Viscosity	Not available	**Partition Coefficient**	Not available	**Solubility in Water**	Not available
pH	Not available				

a) Closed cup

Section 10: Stability and Reactivity

Stabilities	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Ignition sources, temperature above 35 °C [95 °F], and incompatible substances. Vapors may form explosive mixture with air.
Incompatibilities	Strong oxidizing agents, strong acids
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5

Section 11: Toxicological Information

Routes of Exposure

Eyes, ingestion, inhalation, and skin

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation	TCLo inhalation
xylene	4,350 mg/kg Rat	>1,700 mg/kg Rabbit	5,000 ppm 4 h Rat	200 ppm Human
iron (III) oxide	Not established	Not established	Not established	50 mg/m^3 12 h Rat
ethylbenzene	3,500 mg/kg Rat	>5,000 mg/kg Rabbit	35,500 mg/m^3 2h Mouse	100 ppm 8h Human

Note: Representative toxicity data from by RTECS database of the Canadian Centre for Occupational Health and Safety (CCOHS)[1] data from supplier MSDS were also consulted.

Skin corrosion/irritation	Causes skin irritation based on component substances Draize tests on animals. Prolonged or repeated skin contact may cause dermatitis
Serious eye damage/irritation	Causes moderate eye irritation based on component substances Draize tests on animals.
Sensitization (allergic reactions)	No data available

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Carcinogenicity (risk of cancer)	Ethylbenzene [100-414-4] IARC Group 2B: Possibly carcinogenic to humans ACGIH A3: Confirmed animal carcinogen with unknown relevance to humans CA Prop 65: Listed as a carcinogen NTP: Not listed
Mutagenicity (risk of heritable genetic effects)	No data available
Reproductive Toxicity (risk to sex functions)	No data available
Teratogenicity (risk of fetus malformation)	No data available
STOT-single exposure	Xylene can affect the central nervous system by inhalation causing drowsiness or dizziness.
STOT-repeated exposure	No data available.
Aspiration hazard	The mixture is not classified as a aspiration hazard because the concentration of Cat 1 aspiration toxicants is below 5%.

Section 12: Ecological Information

The IMDG Code criteria and the raw-material MSDS along with supporting data for the classification of registered substances from the European Chemical Agency database (http://echa.europa.eu) were used.

Ethylbenzene is an acute category 2 environmental toxicant (with minimal LC50 of 4.2 mg/L for Oncorhhynchus mykiss (rainbow trout); 2.9 mg/L 48 h Daphnia magna (water flea)).

No known aquatic toxic effect for component substances.

Acute Ecotoxicity

GHS Code: Hazard Statement

H401: Toxic to aquatic life

P273: Avoid release to the environment

P391: Collect spillage

Chronic Ecotoxicity

Biodegradability

Not data available

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Other Effects

Regulated Volatile Organic Content, VOC (EPA, WHIMS, and Europe) = 52.5% (557 g/L)

Section 13: Disposal Information

P501: Dispose of contents in accordance with all local, regional, national, and international regulations.

Section 14: Transport Information

Ground

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations); **USA CFR 49 Regulations** (Parts 100 to 185). **ADR** (European Agreement Concerning the International Carriage of Dangerous Goods by Road, and **ADN** (Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways).

Sizes 5 liter and under

Limited Quantity

Sizes greater than 5 liter

UN number: UN1263
Shipping Name: PAINT, Flammable Liquid
Class: 3
Packing Group: III
Marine Pollutant: No

Air

Refer to IATA Dangerous Goods Regulations.

All sizes

UN number: UN1263
Shipping Name: PAINT, Flammable Liquid
Class: 3
Packing Group: III
Marine Pollutant: No

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Sea

Refer to IMDG regulations.

All sizes

UN number: UN1263
Shipping Name: PAINT, Flammable Liquid
Class: 3
Packing Group: III
Marine Pollutant: No

Note: Component supplier SDS transportation sections and labeling were consulted. All involved staff of shipper must be appropriately trained before involvement with the transport of this product, or work under direct supervision of a trained person.

Section 15: Regulatory Information

Canada

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All hazardous ingredients are listed on the DSL/NDSL.

Industry and Science Canada

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

Health Canada

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling Regulations.

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USA

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product contains ethylbenzene and xylene that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45

This product contains ethylbenzene (CAS # 100-41-4; reportable quantity = 1000 lb) and xylene (CAS# 1330-20-7, reportable quantity = 100 lb), which are subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, Sept 2, 2011 revision, USA).

This product contains ethylbenzene (CAS # 100-41-4), which is listed as a carcinogen.

Europe

RoHS

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

WEEE

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

Section 16: Other Information

MSDS Prepared by Michel Hachey

Date of Issue 17 April 2013

Supersedes 9 November 2010

Reason for Changes: Change to GHS format and formulation adjustment

Reference

1) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

2) ACGIH *2011 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices*, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2009).

Abbreviations

ACGIH American Conference of Governmental Industrial Hygienists
GHS: Globally Harmonized System of Classification of Labeling of Chemicals
LC50 Lethal Concentration 50%
LCLo Lowest published lethal concentration
LD50 Lethal Dose 50%
N/A Not Applicable
N/E Not Estimated
PEL Permissible Exposure Limit
STEL Short-Term Exposure Limit
TCLo Lowest published toxic concentration
TWA Time Weighted Average
VOC Volatile Organic Content

Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

Email: support@mgchemicals.com

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