

Kit Revision Date: 09 March 2020

8327GF25 LIQUID THERMAL GAP FILLER, SILICONE KIT

MG Chemicals Multipart Product Kit

This product is a kit made up of multiple parts. Each part is an independently packaged chemical component and has independent hazard assessments.

Kit Content

| Part | Product Name | Product Use |
|------|--------------|---------------|
| А | 8327GF25-A | Thermal paste |
| В | 8327GF25-B | Thermal paste |

Safety Data Sheets for each part listed above follow this cover sheet.

Transportation Instruction

Before offering this product kit for transport, read Section 14 for <u>all</u> parts listed above.



8327GF25-A Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Identifier: 8327GF25-A

Other Means of Identification: Liquid Thermal Gap Filler, Silicone (Part A) / Charge Thermoconductrice Liquide de Silicone (Partie A)

Related Part # 8327GF25-50CC

Recommended Use and Restriction on Use

Use: thermal paste

Uses Advised Against: Not available

Details of Manufacturer or Importer

Manufacturer MG Chemicals 1210 Corporate Drive

CANADA

Burlington, Ontario L7L 5R6

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

| a | +1-800-340-0772 | 2 | +1-905-331-1396 |
|----------|-------------------------|--------|----------------------|
| FAX | +1-800-340-0773 | FAX | +1-905-331-2682 |
| E-MAIL | support@mgchemicals.com | E-MAIL | info@mgchemicals.com |
| WEB | www.mgchemicals.com | | |

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

Emergency Phone Number

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents) USA or CANADA—Call Verisk 3E at **+1-866-519-4752** or **+1-760-476-3962** (Service access code: 335388)

For emergencies involving the transport of dangerous goods; 24/7 service CANADA—Call CANUTEC collect at **+1-613-996-6666** or ***666** on cellular phones

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Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Based on available data, this product does not meet the HCS 2012 or WHMIS 2015 classification criteria.

| Label Elements | | |
|----------------|-------------------|--|
| Signal Word | No signal word | |
| Pictograms | Hazard Statements | |
| None mandated | None | |
| | | |

Hazards Not Otherwise Classified

| Other Criteria | Hazard Statements/Precautionary Statement | Signal Word | Pictograms |
|----------------|--|----------------|------------|
| None | None | None | None |

| CAS # | Chemical Name | %(weight) |
|-----------|----------------|-----------|
| 1344-28-1 | aluminum oxide | 80-100% |
| 1333-86-4 | carbon black | 0.1-1% |



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| Section 4: First-Aid Measures | | |
|-------------------------------|--|--|
| Exposure Condition | GHS Code/Symptoms/Precautionary Statements | |
| IF IN EYES | P305 + P351 + P338 | |
| Immediate Symptoms | low toxicity: no symptoms known or expected | |
| Response | Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | |
| IF ON SKIN | P302 + P352 | |
| Immediate Symptoms | low toxicity: no symptoms known or expected | |
| Response | Wash with plenty of water and soap. | |
| IF INHALED | P304 + P340 | |
| Immediate Symptoms | low toxicity: no symptoms known or expected | |
| Response | Remove person to fresh air and keep comfortable for breathing. | |
| IF SWALLOWED | P301 + P330, P331 | |
| Immediate Symptoms | low toxicity: no symptoms known or expected | |
| Response | Rinse mouth. Do NOT induce vomiting. | |

| Section | 5: Fire- | Fighting | Measures |
|---------|----------|----------|----------|
|---------|----------|----------|----------|

| Extinguishing Media | Use extinguishing media suitable for surrounding materials. |
|----------------------------|--|
| Specific Hazards | Not flammable or combustible, but burns if involved in a fire. |
| Combustion Products | Produces silicone oxide (SiO ₂), aluminium oxides, and carbon oxides (CO, CO ₂) and may generate formaldehyde. |
| Fire-Fighter | Wear self-contained breathing apparatus and full fire-fighting turn-out gear. |



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Section 6: Accidental Release Measures

| Personal Protection | See personal protection recommendations in Section 8. |
|------------------------------|--|
| Precautions for Response | Not available |
| Environmental Precautions | Avoid releasing to the environment. |
| Containment Methods | Not applicable—not readily flowable |
| Cleaning Methods | Collect waste in a waste container. Use soap and water to remove the last traces of residue and prevent slipping hazard. |
| Disposal Methods | Dispose of spill waste according to Section 13. |

Section 7: Handling and Storage

| Prevention | Keep out of reach of children. |
|------------|--|
| | Avoid eye or skin contact. |
| Handling | Wear protective gloves and eye protection. |
| | Wash hands thoroughly after handling. |
| Storage | Not available |

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Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

| Chemical Name | Country or Vendor | Long Term Exposure Limits (PEL) | Short Term Exposure Limits (STEL) |
|----------------------------|----------------------|---------------------------------------|---|
| aluminum oxide | ACGIH | 1 mg/m ³ | Not established |
| (dust/mist) | U.S.A. OSHA PEL | 15 mg/m ^{3 a)} | Not established |
| | Canada AB | 10 mg/m ³ | Not established |
| | Canada BC | 3 mg/m ³ | 10 mg/m ³ |
| | Canada ON | Not established | Not established |
| | Canada SK | 10 mg/m ³ | 20 mg/m ³ |
| | Canada QC | 10 mg/m ³ | Not established |
| carbon black ^{a)} | ACGIH | 3.5 mg/m ³ | Not established |
| | U.S.A. OSHA PEL | 3.5 mg/m ³ | Not established |
| | Canada AB | 3.5 mg/m ³ | Not established |
| | Canada BC | 3 mg/m^3 | Not established |
| | Canada ON | 3.5 mg/m ³ | Not established |
| | Canada SK | 3.5 mg/m^3 | 7 mg/m ³ |
| | Canada QC | 3.5 mg/m ³ | Not established |
| | | | |

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS database² and from suppliers' SDSs were also consulted. Short term exposure limits (STEL) are usually for 15 min and long term permissible exposure limits (PEL) for 8 h.

a) Respirable airborne particles

Engineering Controls

Ventilation

Normal ventilation is generally adequate, except in enclosed or low lying area.

Because the aluminum oxide and carbon black are bound to the paste mixture, it does not present an airborne hazard under normal use. Ensure adequate ventilation if the product is mechanically misted or aerosolized.

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| Personal Protective Equipment | | |
|-------------------------------|--|--|
| Eye protection | Wear appropriate protective eyeglasses or chemical safety goggles. | |
| | RECOMMENDATION: Ensure that glasses have side shields for lateral protection. | |
| Skin Protection | For likely contacts, use of protective nitrile gloves or other chemically resistant gloves. | |
| Respiratory Protection | If exposure limits are exceeded of if respiratory irritation is experienced, wear an approved NIOS/MSHA respirator with a particulate filter. | |
| | RECOMMENDATION: Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a | |

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

professional.

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Section 9: Physical and Chemical Properties

| Physical State | Liquid | Lower Flammability Limit | Not applicable |
|---------------------------|--------------------|--|--------------------|
| Appearance | Dark grey paste | Upper Flammability Limit | Not applicable |
| Odor | Negligible | Vapor Pressure @20 °C | Not available |
| Odor Threshold | Not available | Vapor Density | Not available |
| рН | Not applicable | Relative Density @23 °C | 2.90 |
| Freezing/Melting Point | Not available | Solubility in Water | Insoluble |
| Initial Boiling Point | Not available | Partition Coefficient n-octanol/water | Not available |
| Flash Point | 350 °C [662 °F] | Auto-ignition Temperature | 450 °C [842 °F] |
| Evaporation Rate | Not available | Decomposition Temperature | Not available |
| Flammability | Non Flammable | Viscosity @23 °C | 100 000 mPa∙s |

Section 10: Stability and Reactivity

| Reactivity | Chemically stable at normal temperatures and pressures. |
|------------------------|---|
| | Above 150 °C [300 °F] and in presence of oxygen in air, forms a small amount of formaldehyde through oxidative degradation. |
| Chemical Stability | Stable under normal conditions |
| Conditions to Avoid | Moisture, freezing, excessive heat, and incompatible substances |
| Incompatibilities | Water, acids, bases, peroxides |
| Polymerization | Will not occur |
| Decomposition | Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5. |



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Section 11: Toxicological Information

Summary of Effects and Symptoms by Routes of Exposure

| Eyes | Low toxicity: no symptoms known or expected |
|------------|---|
| Skin | Low toxicity: no symptoms known or expected |
| Inhalation | Low toxicity: no symptoms known or expected |
| Ingestion | Low toxicity: no symptoms known or expected |
| Chronic | Low Toxicity—No known long term effects. |

Acute Toxicity (Lethal Exposure Concentrations)

| Chemical Name | LD50 | LD50 | LC50 | |
|----------------|--------------|-----------|------------|--|
| | oral | dermal | inhalation | |
| aluminum oxide | >5 000 mg/kg | Not | Not | |
| | Rat | available | available | |
| carbon black | >15 g/kg | >3 g/kg | Not | |
| | Rat | Rabbit | available | |

Note: Toxicity data from the RTECS² and ECHA databases were consulted. The data from supplier SDSs' were also consulted.

Other Toxicological Effects

| Skin corrosion/irritation | Based on available data, the classification criteria are not met. |
|---------------------------------------|---|
| Serious eye damage/irritation | Based on available data, the classification criteria are not met. |
| Sensitization (allergic reactions) | Based on available data, the classification criteria are not met. |

Section continued on the next page



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| Carcinogenicity (risk of cancer) | The carbon black [1333-86-4] is possibly carcinogenic by airborne routes of exposures. Because the carbon black is bound in the highly viscous grease matrix, it is not expected to be available as an airborne hazard (dust, mist, or spray) under normal and emergency uses. |
|---|---|
| | Carbon Black [1333-86-4] |
| | IARC Group 2B: Possibly carcinogenic to humans |
| | ACGIH A4: Not classified as a human carcinogen |
| | CA Prop 65: Listed as a carcinogen |
| | NTP: Not listed |
| Mutagenicity (risk of heritable genetic effects) | Based on available data, the classification criteria are not met. |
| Reproductive Toxicity (risk to sex functions) | Based on available data, the classification criteria are not met. |
| Teratogenicity | Based on available data, the classification criteria are |
| (risk of fetus malformation) | not met. |
| STOT-single exposure | Based on available data, the classification criteria are not met. |
| STOT-repeated exposure | Based on available data, the classification criteria are not met. |
| Aspiration hazard | Based on available data, the classification criteria are not met. There are no category 1 components, and the kinematic viscosity is >20.5 mm ² /s. |

Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<u>http://echa.europa.eu</u>), and other reliable sources.

Based on available data, aluminum oxide and carbon black are not classified as environmental hazard according to GHS criteria.

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Acute Ecotoxicity

Based on available data, the classification criteria are not met.

Chronic Ecotoxicity

Based on available data, the classification criteria are not met.

Biodegradability

Not available

Bioaccumulation

Not available

Other Effects

Not available

Section 13: Disposal Information

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 DOT 49 CFR** (Parts 100 to 185) **Regulations.**

Non Regulated

Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Non Regulated

Sea

Refer to IMDG regulations.

Non Regulated

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Section 15: Regulatory Information

Canada

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

All hazardous ingredients are listed on the DSL or NDSL.

A non-hazardous ingredient is not DSL or NDSL listed.

Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

USA

Other Classifications

HMIS® RATING

| HEALTH: | * | 1 |
|----------------------|---|---|
| FLAMMABILITY: | | 1 |
| PHYSICAL HAZARD: | | 0 |
| PERSONAL PROTECTION: | | |





Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

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 does not contain substances that are listed as hazardous air pollutants.

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

This product contains does not contain substances 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.

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California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity)

This product contains carbon black, but it is bound and exposures during normal conditions of uses are below the Safe Harbor Threshold.

Europe

RoHS (Restriction of Hazardous Substances Directive)

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

WEEE (Waste Electrical and Electronic Equipment Directive)

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

Section 16: Other Information

| SDS Prepared by | MG Chemical's Regulatory Department |
|-----------------|-------------------------------------|
| Date of Review | 09 March 2020 |
| Supersedes | 09 December 2020 |

Reason for Changes: Update to the emergency phone number information.

Reference

1) ACGIH 2017 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 (2017).

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

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Canada

Abbreviations

- ACGIH American Conference of Governmental Industrial Hygienists (USA)
- EC50 Half maximal effective concentration
- EL50 Half maximal effective loading
- IARC International Agency for Research on Cancer
- NOELR No observable effect loading ratio
- NTP National Toxicology Program
- GHS Globally Harmonized System of Classification of Labeling of Chemicals
- LC50 Lethal Concentration 50%
- LCLo Lowest published lethal concentration
- LD50 Lethal Dose 50%
- OEL Occupational Exposure Limit
- PEL Permissible Exposure Limit
- SDS Safety Data Sheet
- 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 <u>www.mgchemicals.com</u>.

Email: support@mgchemicals.com

| Mailing Addresses | Manufacturing & Support | Head Office |
|-------------------|-----------------------------|---------------------------|
| | 1210 Corporate Drive | 9347–193rd Street |
| | Burlington, Ontario, Canada | Surrey, British Columbia, |
| | L7L 5R6 | V4N 4E7 |
| | | |

Disclaimer This safety data sheet is provided as an information resource only. *M.G. Chemicals, Ltd.* believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to query and verify any information seeming suspect where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, regional, national, and international regulations.



Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Identifier: 8327GF25-B

Other Means of Identification: Liquid Thermal Gap Filler, Silicone (Part B) / Charge Thermoconductrice Liquide de Silicone (Partie B)

Related Part # 8327GF25-50CC

Recommended Use and Restriction on Use

Use: thermal paste

CANADA

Uses Advised Against: Not available

Details of Manufacturer or Importer

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

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

| * | +1-800-340-0772 | 2 | +1-905-331-1396 |
|----------|-------------------------|--------|----------------------|
| FAX | +1-800-340-0773 | FAX | +1-905-331-2682 |
| E-MAIL | support@mgchemicals.com | E-MAIL | info@mgchemicals.com |
| WEB | www.mgchemicals.com | | |

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

Emergency Phone Number

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents) USA or CANADA—Call Verisk 3E at **+1-866-519-4752** or **+1-760-476-3962** (Service access code: 335388)

For emergencies involving the transport of dangerous goods; 24/7 service CANADA—Call CANUTEC collect at **+1-613-996-6666** or ***666** on cellular phones

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PART B



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PART B

Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Based on available data, this product does not meet the HCS 2012 or WHMIS 2015 classification criteria.

| Label Elements | |
|----------------|-------------------|
| Signal Word | No signal word |
| Pictograms | Hazard Statements |
| None mandated | None |
| | |

Hazards Not Otherwise Classified

| Other Criteria | Hazard Statements/Precautionary Statement | Signal Word | Pictograms |
|----------------|--|----------------|------------|
| None | None | None | None |

| CAS # | Chemical Name | %(weight) |
|-----------|----------------|-----------|
| 1344-28-1 | aluminum oxide | 80-100% |



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| Section 4: First-Aid Measures | |
|-------------------------------|--|
| Exposure Condition | GHS Code/Symptoms/Precautionary Statements |
| IF IN EYES | P305 + P351 + P338 |
| Immediate Symptoms | low toxicity: no symptoms known or expected |
| Response | Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| IF ON SKIN | P302 + P352 |
| Immediate Symptoms | low toxicity: no symptoms known or expected |
| Response | Wash with plenty of water and soap. |
| IF INHALED | P304 + P340 |
| Immediate Symptoms | low toxicity: no symptoms known or expected |
| Response | Remove person to fresh air and keep comfortable for breathing. |
| IF SWALLOWED | P301 + P330, P331 |
| Immediate Symptoms | low toxicity: no symptoms known or expected |
| Response | Rinse mouth. Do NOT induce vomiting. |

| Extinguishing Media | Use extinguishing media suitable for surrounding materials. |
|----------------------------|--|
| Specific Hazards | Not flammable or combustible, but burns if involved in a fire. |
| Combustion Products | Produces silicone oxide (SiO2), aluminium oxides, and carbon oxides (CO, CO2) and may generate formaldehyde. |
| Fire-Fighter | Wear self-contained breathing apparatus and full fire-fighting turn-out gear. |



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Section 6: Accidental Release Measures

| Personal Protection | See personal protection recommendations in Section 8. |
|------------------------------|--|
| Precautions for Response | Not available |
| Environmental Precautions | Avoid releasing to the environment. |
| Containment Methods | Not applicable—not readily flowable |
| Cleaning Methods | Collect waste in a waste container. Use soap and water to remove the last traces of residue and prevent slipping hazard. |
| Disposal Methods | Dispose of spill waste according to Section 13. |

Section 7: Handling and Storage

| Prevention | Keep out of reach of children. |
|------------|--|
| | Avoid eye or skin contact. |
| Handling | Wear protective gloves and eye protection. |
| | Wash hands thoroughly after handling. |
| Storage | No available |

Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

| Chemical Name | Country or Vendor | Long Term Exposure Limits (PEL) | Short Term Exposure Limits (STEL) |
|-------------------------------|---|--|---|
| aluminum oxide (dust/mist) | ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada SK Canada QC | 1 mg/m ³ 15 mg/m ^{3 a)} 10 mg/m ³ 3 mg/m ³ Not established 10 mg/m ³ 10 mg/m ³ | Not established Not established Not established 10 mg/m ³ Not established 20 mg/m ³ Not established |

Note: The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS database² and from suppliers' SDSs were also consulted. Short term exposure limits (STEL) are usually for 15 min and long term permissible exposure limits (PEL) for 8 h.

Section continued on the next page

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| Engineering Controls | |
|-------------------------------|--|
| Ventilation | Normal ventilation is generally adequate, except in enclosed or low lying area. |
| | Because the aluminum oxide is bound to the paste mixture, it does not present an airborne hazard under normal use. Ensure adequate ventilation if the product is mechanically misted or aerosolized. |
| Personal Protective Equ | ipment |
| Eye protection | Wear appropriate protective eyeglasses or chemical safety goggles. |
| | RECOMMENDATION: Ensure that glasses have side shields for lateral protection. |
| Skin Protection | For likely contacts, use of protective nitrile gloves or other chemically resistant gloves. |
| Respiratory Protection | If exposure limits are exceeded of if respiratory irritation is experienced, wear an approved NIOS/MSHA respirator with a particulate filter. |
| | RECOMMENDATION: Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a professional. |

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

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PART B

Section 9: Physical and Chemical Properties

| Physical State | Liquid | Lower Flammability Limit | Not applicable |
|---------------------------|--------------------|--|--------------------|
| Appearance | Pale grey paste | Upper Flammability Limit | Not applicable |
| Odor | Negligible | Vapor Pressure @20 °C | Not available |
| Odor Threshold | Not available | Vapor Density | Not available |
| рН | Not applicable | Relative Density @23 °C | 2.90 |
| Freezing/Melting Point | Not available | Solubility in Water | Not available |
| Initial Boiling Point | Not Available | Partition Coefficient n-octanol/water | Not available |
| Flash Point | 350 °C [662 °F] | Auto-ignition Temperature | 450 °C [842 °F] |
| Evaporation Rate | Not Available | Decomposition Temperature | Not available |
| Flammability | Non Flammable | Viscosity @23 °C | 100 000 mPa·s |

Section 10: Stability and Reactivity

| Reactivity | Chemically stable at normal temperatures and pressures. |
|------------------------|---|
| | Above 150 °C [300 °F] and in presence of oxygen in air, forms a small amount of formaldehyde through oxidative degradation. |
| Chemical Stability | Stable under normal conditions |
| Conditions to Avoid | Moisture, freezing, excessive heat, and incompatible substances |
| Incompatibilities | Water, acids, bases, peroxides |
| Polymerization | Will not occur |
| Decomposition | Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5. |



PART B

Section 11: Toxicological Information

Summary of Effects and Symptoms by Routes of Exposure

| Eyes | Low toxicity: no symptoms known or expected. |
|------------|--|
| Skin | Low toxicity: no symptoms known or expected. |
| Inhalation | Low toxicity: no symptoms known or expected. |
| Ingestion | Low toxicity: no symptoms known or expected. |
| Chronic | Low Toxicity—No known long term effects. |

Acute Toxicity (Lethal Exposure Concentrations)

| Chemical Name | LD50 | LD50 | LC50 |
|----------------|--------------|-----------|------------|
| | oral | dermal | inhalation |
| aluminum oxide | >5 000 mg/kg | Not | Not |
| | Rat | available | available |

Note: Toxicity data from the RTECS² and ECHA databases were consulted. The data from supplier SDSs' were also consulted.

Other Toxicological Effects

| Skin corrosion/irritation | Based on available data, the classification criteria are not met. |
|---------------------------------------|---|
| Serious eye damage/irritation | Based on available data, the classification criteria are not met. |
| Sensitization (allergic reactions) | Based on available data, the classification criteria are not met. |

Section continued on the next page

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| Carcinogenicity (risk of cancer) | None of the ingredients are classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP. | |
|--|---|--|
| Mutagenicity (risk of heritable genetic effects) | Based on available data, the classification criteria are not met. | |
| Reproductive Toxicity (risk to sex functions) | Based on available data, the classification criteria are not met. | |
| Teratogenicity | Based on available data, the classification criteria are not met. | |
| (risk of fetus malformation) | | |
| STOT-single exposure | Based on available data, the classification criteria are not met. | |
| STOT-repeated exposure | Based on available data, the classification criteria are not met. | |
| Aspiration hazard | Based on available data, the classification criteria are not met. There are no category 1 components, and the kinematic viscosity is >20.5 mm^2/s . | |

Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<u>http://echa.europa.eu</u>), and other reliable sources.

Based on available data, aluminum oxide is not classified as environmental hazard according to GHS criteria.

Acute Ecotoxicity

Based on available data, the classification criteria are not met.

Chronic Ecotoxicity

Based on available data, the classification criteria are not met.

Biodegradability

Not available

Bioaccumulation

Not available

Section continued on the next page

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Other Effects

Not available

Section 13: Disposal Information

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 DOT 49 CFR** (Parts 100 to 185) **Regulations.**

Non Regulated

Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Non Regulated

Sea

Refer to IMDG regulations.

Non Regulated

Section 15: Regulatory Information

Canada

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

All hazardous ingredients are listed on the DSL or NDSL.

A non-hazardous ingredient is not DSL or NDSL listed.

Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

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PART B

USA

Other Classifications

HMIS® RATING

| HEALTH: | * | 1 |
|----------------------|---|---|
| FLAMMABILITY: | | 1 |
| 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)

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 does not contain substances that are listed as hazardous air pollutants.

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

This product contains does not contain substances 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)

This product does not contain any substances on the California Proposition 65 list.

Europe

RoHS (Restriction of Hazardous Substances Directive)

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

WEEE (Waste Electrical and Electronic Equipment Directive)

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

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ISO 9001:2015 Quality Management System SAI Global File #004008

Burlington, Ontario, Canada

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| SDS Prepared by | MG Chemical's Regulatory Department | |
|---|-------------------------------------|--|
| Date of Review | 09 March 2020 | |
| Supersedes | 03 December 2019 | |
| Reason for Changes: Update to the emergency phone number information. | | |

Reference

1) ACGIH 2017 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 (2017).

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

Abbreviations

- ACGIH American Conference of Governmental Industrial Hygienists (USA)
- EC50 Half maximal effective concentration
- EL50 Half maximal effective loading
- IARC International Agency for Research on Cancer
- NOELR No observable effect loading ratio
- NTP National Toxicology Program
- GHS Globally Harmonized System of Classification of Labeling of Chemicals
- LC50 Lethal Concentration 50%
- LCLo Lowest published lethal concentration
- LD50 Lethal Dose 50%
- OEL Occupational Exposure Limit
- PEL Permissible Exposure Limit
- SDS Safety Data Sheet
- STEL Short-Term Exposure Limit
- TCLo Lowest published toxic concentration
- TWA Time Weighted Average
- VOC Volatile Organic Content

Section continued on the next page

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PART B

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

Email: support@mgchemicals.com

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Disclaimer This safety data sheet is provided as an information resource only. *M.G. Chemicals, Ltd.* believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to query and verify any information seeming suspect where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, regional, national, and international regulations.

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