Safety Data Sheet

This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

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SECTION 1: Identification

1.1. Product identifier
3M Glass Polishing Compound 60150

1.2. Recommended use and restrictions on use

Recommended use
Abrasive Product, Glass Polishing. For industrial/occupational use only. Not for consumer sale or use.

1.3. Supplier's details
Address: 3M Technologies (S) Pte Ltd,10 Ang Mo Kio Street 65, Singapore 569059
Telephone: +65 6450 8888
Website: www.3m.com.sg

1.4. Emergency telephone number
+65 6591 6601 (8.15am - 5.00pm, Monday - Friday)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
This product is not classified as hazardous per GHS criteria as implemented by Singapore Standard SS586.

2.2. Label elements
SIGNAL WORD
Not applicable.

Symbols
Not applicable.

Pictograms
Not applicable.

2.3. Other hazards
None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Water	7732-18-5	70 - 80
Cerium Oxide (CeO2)	1306-38-3	15 - 30
Lanthanum Oxide	1312-81-8	< 5
(Hydroxyethyl)Cellulose	9004-62-0	< 2
2-Bromo-2-nitro-1,3-propanediol	52-51-7	< 0.03

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
If exposed, wash with soap and water. If signs/symptoms develop, get medical attention.

Eye contact
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed
Do not induce vomiting. Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
No critical symptoms or effects. See Section 11.1, information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Material will not burn. Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
None known.	During combustion.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Observe precautions from other sections.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of dust created by sanding, grinding or machining. Avoid release to the environment.

7.2. Conditions for safe storage including any incompatibilities
Keep from freezing.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

8.2. Exposure controls

8.2.1. Engineering controls
Provide appropriate local exhaust ventilation for sanding, grinding or machining. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.

Skin/hand protection
No chemical protective gloves are required.

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.

Specific Physical Form:	Dispersion
Color	White
Odor	Odourless
Odour threshold	*No data available.*
pH	6 - 9
Melting point/Freezing point	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	100 ºC
Flash point	No flash point
Evaporation rate	*No data available.*
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	2,306.5 Pa [@ 20 ºC]
Vapor Density and/or Relative Vapor Density	*No data available.*
Density	1.17 - 1.3 g/cm3
Relative density	1.17 - 1.3
Water solubility	Moderate
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*Not applicable.*
Decomposition temperature	*No data available.*
Viscosity/Kinematic Viscosity	*No data available.*
Volatile organic compounds (VOC)	0.0013 % [*Details:*Calculated]
Percent volatile	78 % [*Details:*Calculated including water]
VOC less H2O & exempt solvents	0.036 g/l [*Details:*Calculated]
Molecular weight	*No data available.*

SECTION 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non reactive under normal use conditions

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
None known.

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Dust from grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact
Contact with the skin during product use is not expected to result in significant irritation.

Eye contact
Dust created by grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion
No known health effects.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Lanthanum Oxide	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Lanthanum Oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
Lanthanum Oxide	Ingestion	Rat	LD50 > 10,000 mg/kg
(Hydroxyethyl)Cellulose	Dermal		LD50 estimated to be > 5,000 mg/kg
(Hydroxyethyl)Cellulose	Ingestion	Rat	LD50 > 5,000 mg/kg
2-Bromo-2-nitro-1,3-propanediol	Dermal	Rat	LD50 > 2,000 mg/kg
2-Bromo-2-nitro-1,3-propanediol	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.588 mg/l
2-Bromo-2-nitro-1,3-propanediol	Ingestion	Rat	LD50 193 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Lanthanum Oxide	Rabbit	No significant irritation
(Hydroxyethyl)Cellulose	Human and animal	No significant irritation
2-Bromo-2-nitro-1,3-propanediol	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Lanthanum Oxide	Rabbit	Mild irritant
(Hydroxyethyl)Cellulose	Rabbit	No significant irritation
2-Bromo-2-nitro-1,3-propanediol	Rabbit	Corrosive

Sensitization:

Skin Sensitisation

Name	Species	Value
Lanthanum Oxide	Guinea pig	Not classified
2-Bromo-2-nitro-1,3-propanediol	Guinea pig	Not classified

Respiratory Sensitisation

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
2-Bromo-2-nitro-1,3-propanediol	In vivo	Not mutagenic
2-Bromo-2-nitro-1,3-propanediol	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
2-Bromo-2-nitro-1,3-propanediol	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
2-Bromo-2-nitro-1,3-propanediol	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
2-Bromo-2-nitro-1,3-propanediol	Ingestion	Not classified for male reproduction	Rat	NOAEL 150 mg/kg/day	2 generation
2-Bromo-2-nitro-1,3-propanediol	Ingestion	Not classified for female reproduction	Rat	NOAEL 50 mg/kg/day	2 generation
2-Bromo-2-nitro-1,3-propanediol	Ingestion	Not classified for development	Rabbit	NOAEL 10 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
2-Bromo-2-nitro-1,3-propanediol	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available.	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
2-Bromo-2-nitro-1,3-propanediol	Dermal	heart | skin | endocrine system | gastrointestinal tract	Not classified	Rabbit	NOAEL 5 mg/kg/day	21 days

		| hematopoietic system | liver | immune system | nervous system | eyes | kidney and/or bladder				
2-Bromo-2-nitro-1,3-propanediol	Ingestion	gastrointestinal tract | immune system | kidney and/or bladder | heart | endocrine system | hematopoietic system | liver | nervous system | eyes | respiratory system	Not classified	Rat	NOAEL 160 mg/kg/day	2 years

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:
Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:
Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Cerium Oxide (CeO2)	1306-38-3	Green algae	Endpoint not reached	72 hours	EL50	>100 mg/l
Cerium Oxide (CeO2)	1306-38-3	Activated sludge	Experimental	3 hours	EC50	>1,003.8 mg/l
Cerium Oxide (CeO2)	1306-38-3	Fathead minnow	Experimental	96 hours	LL50	>100 mg/l
Cerium Oxide (CeO2)	1306-38-3	Water flea	Experimental	48 hours	LL50	>100 mg/l
Cerium Oxide (CeO2)	1306-38-3	Water flea	Experimental	21 days	NOEL	100 mg/l
Lanthanum Oxide	1312-81-8	Water flea	Experimental	48 hours	EC50	>100 mg/l
Lanthanum Oxide	1312-81-8	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Lanthanum Oxide	1312-81-8	Water flea	Experimental	21 days	NOEC	100 mg/l
(Hydroxyethyl)Cellulose	9004-62-0	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Bluegill	Experimental	96 hours	LC50	11 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Diatom	Experimental	72 hours	ErC50	0.178 mg/l

2-Bromo-2-nitro-1,3-propanediol	52-51-7	Green algae	Experimental	96 hours	ErC50	0.02 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Mysid Shrimp	Experimental	96 hours	LC50	4.3 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Sheepshead Minnow	Experimental	96 hours	LC50	57.6 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Water flea	Experimental	48 hours	EC50	1.4 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Diatom	Experimental	72 hours	NOEC	0.052 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Green algae	Experimental	96 hours	NOEL	0.012 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Rainbow trout	Experimental	49 days	NOEC	1.94 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Water flea	Experimental	21 days	NOEC	0.27 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Activated sludge	Experimental	150 minutes	EC50	43 mg/l
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Bobwhite quail	Experimental	5 hours	LD50	4,488 mg/kg (Dry Weight)
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Redworm	Experimental	14 days	LC50	>500 mg/kg (Dry Weight)
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Redworm	Experimental	56 days	NOEC	62.5 mg/kg (Dry Weight)
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Soil microbes	Experimental	28 days	EC10	10.4 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Cerium Oxide (CeO2)	1306-38-3	Data not available-insufficient	N/A	N/A	N/A	N/A
Lanthanum Oxide	1312-81-8	Data not available-insufficient	N/A	N/A	N/A	N/A
(Hydroxyethyl)Cellulose	9004-62-0	Data not available-insufficient	N/A	N/A	N/A	N/A
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Experimental Biodegradation	28 days	CO2 evolution	20 %CO2 evolution/THCO2 evolution (does not pass 10-day window)	OECD 301B - Modified sturm or CO2
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Experimental Aquatic Inherent Biodegrad.	45 days	Dissolv. Organic Carbon Deplet	50 %removal of DOC	OECD 302B Zahn-Wellens/EVPA
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Experimental Biodegradation	1 hours	Percent degraded	99 %degraded	OECD 314 Simu Biodeg WW
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Experimental Photolysis		Photolytic half-life(in water)	24 hours (t 1/2)	
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	2.4 hours (t 1/2)	OECD 111 Hydrolysis func of pH

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Cerium Oxide (CeO2)	1306-38-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Lanthanum Oxide	1312-81-8	Data not available or insufficient for	N/A	N/A	N/A	N/A

		classification				
(Hydroxyethyl)Cellulose	9004-62-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-Bromo-2-nitro-1,3-propanediol	52-51-7	Experimental Bioconcentration		Log Kow	0.15	OECD 107 log Kow shke flsk mtd

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

SECTION 14: Transport Information

International Regulations

UN No.: Not restricted for transport.
UN Proper shipping name: Not restricted for transport.

Transportation Class (IMO): None assigned
Transportation Class (IATA): None assigned
Other Dangerous Goods Descriptions (IMO): None assigned
Other Dangerous Goods Descriptions (IATA): None assigned
Packing Group: None assigned
Marine pollutant: None assigned

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

This product may contain component(s) that are regulated by the following:
Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations: this product is subject to SDS, labelling, PEL and other requirements in the Act/Regulations.
Environmental Protection and Management (Hazardous Substances) Regulations: This product is subject to the requirements in the Regulations

SECTION 16: Other information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Singapore SDSs are available at www.3m.com.sg