

SAFETY DATA SHEET

1. Identification

| Product identifier | Resin Bonded Product |
|---------------------------------|--|
| Other means of identification | |
| Product code | 983591 |
| Recommended use | Abrasive Product |
| Recommended restrictions | None known. |
| Manufacturer/Importer/Supplier/ | Distributor information |
| United States | |
| Address: | Saint-Gobain Abrasives |
| | One New Bond Street |
| | Worcester, MA 01615 |
| General Phone Number: | 800-551-4413 |
| Website: | www.Nortonabrasives.com |
| Canada | |
| Company name: | Saint-Gobain Canada, Inc. |
| Address: | 28 Albert Street, W. |
| | Plattsville, ON NOJ 1S0 |
| General Phone Number: | 519-684-7441 |
| Website: | www.Nortonabrasives.com |
| Emergency phone number: | 508-795-5000 |
| CHEMTREC: | For emergencies in the US or Canada, call CHEMTREC: 800-424-9300 |

2. Hazard(s) identification

| Physical hazards | Not classified. |
|--|--|
| Health hazards | Not classified. |
| Environmental hazards | Not classified. |
| OSHA defined hazards | Not classified. |
| Label elements | |
| Hazard symbol | None. |
| Signal word | None. |
| Hazard statement | The mixture does not meet the criteria for classification. |
| Precautionary statement | |
| Prevention | Not available. |
| Response | Not available. |
| Storage | Not available. |
| Disposal | Not available. |
| Hazard(s) not otherwise classified (HNOC) | None known. |

65% of the mixture consists of component(s) of unknown acute oral toxicity. 100% of the mixture consists of component(s) of unknown acute dermal toxicity. 100% of the mixture consists of component(s) of unknown acute inhalation toxicity. 100% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 100% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|-----------------------------|--------------------------|------------|----------|
| Aluminum Oxide, Non-fibrous | | 1344-28-1 | 60 - 100 |
| Resin | | 9003-35-4 | 10 - 30 |
| Sulfates/sulfides | | No Data | 10 - 30 |
| Fiberglass | | 65997-17-3 | 1 - 5 |

4. First-aid measures

| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
|--|--|
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| Eye contact | Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists. |
| Ingestion | Rinse mouth. Get medical attention if symptoms occur. |
| Most important symptoms/effects, acute and delayed | Dusts may irritate the respiratory tract, skin and eyes. |
| Indication of immediate medical attention and special treatment needed | Treat symptomatically. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |
| 5. Fire-fighting measures | |
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting equipment/instructions | Move containers from fire area if you can do so without risk. |

6. Accidental release measures

Specific methods

General fire hazards

| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. For personal protection, see section 8 of the SDS. |
|---|---|
| Methods and materials for containment and cleaning up | Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk. |
| | Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water. |
| | Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |

No unusual fire or explosion hazards noted.

Use standard firefighting procedures and consider the hazards of other involved materials.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Practice good housekeeping. For industrial or professional use only. Always read, understand and follow the Safety Guide insert as well as the Safety Data Sheet before use. Use care when handling and storing abrasive wheels and products. Always inspect products for cracks, chips, nicks and for possible damage before mounting and ring test vitrified wheels. Damaged product can break apart during use and cause serious injury. Always use a guard, never exceed maximum operating speed, mount and operate according to ANSI B7.1 for Bonded Abrasive products and ANSI B7.7 for Coated Abrasive products.

Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible including any incompatibilities materials (see Section 10 of the SDS).

Protective measures

Conditions for safe storage,

Wear appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing dust. Read the Safety Data Sheet of the material you are grinding, polishing, cutting, sanding, etc. for appropriate respiratory protection. Wash hands after handling

Storage conditions

Bonded Abrasive products should be stored according to ANSI B7.1 and not be exposed to extreme temperatures or conditions that cause condensation. Coated Abrasive products should be stored according to ANSI B7.7 and between 35-50% relative humidity and between 60-80 degrees Fahrenheit.

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Туре | Value | Form |
|---|---|--|---|
| Aluminum Oxide, Non-fibrous (CAS 1344-28-1) | PEL | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |
| US. OSHA Table Z-3 (29 | - | | _ |
| Components | Туре | Value | Form |
| Aluminum Oxide, Non-fibrous (CAS 1344-28-1) | TWA | 5 mg/m3 | Respirable fraction. |
| | | 15 mg/m3 | Total dust. |
| | | 50 mppcf | Total dust. |
| | | 15 mppcf | Respirable fraction. |
| US. ACGIH Threshold Lir | mit Values | | |
| Components | Туре | Value | Form |
| Aluminum Oxide, Non-fibrous (CAS 1344-28-1) | TWA | 1 mg/m3 | Respirable fraction. |
| US. NIOSH: Pocket Guide | e to Chemical Hazards | | |
| Components | Туре | Value | Form |
| Fiberglass (CAS 65997-17-3) | TWA | 5 mg/m3 | fibers, total dust |
| logical limit values | No biological exposure limits noted f | or the ingredient(s). | |
| propriate engineering trols | Good general ventilation should be applicable, use process enclosures, maintain airborne levels below recor established, maintain airborne levels sufficient to maintain concentrations (OEL), suitable respiratory protection operation which may generate dusts below the recommended exposure li | local exhaust ventilation, or oth mmended exposure limits. If ex s to an acceptable level. If engin of dust particulates below the m must be worn. If material is gr s, use appropriate local exhaust | ner engineering controls to posure limits have not beer neering measures are not Occupational Exposure Lim round, cut, or used in any |
| vidual protoction macour | | | |
| | es, such as personal protective equipn | nent | |

Eye/face protection Wear safety glasses with side shields (or goggles).

| Skin protection Hand protection | Wear appropriate chemical resistant gloves. |
|------------------------------------|---|
| Other | Wear appropriate chemical resistant clothing. |
| Respiratory protection | Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

9. Physical and chemical properties

| Appearance | |
|--|---|
| Physical state | Solid. |
| Form | Powder. |
| Color | Not available. |
| Odor | Not available. |
| Odor threshold | Not available. |
| рН | Not available. |
| Melting point/freezing point | 3632 °F (2000 °C) estimated |
| Initial boiling point and boiling range | 5390.6 °F (2977 °C) estimated |
| Flash point | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or exp | |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | -0.01 hPa estimated |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Density | 3.36 g/cm3 estimated |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |
| Specific gravity | 3.36 estimated |
| 10. Stability and reactivity | |
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Contact with incompatible materials. |
| Incompatible materials | Acids. Chlorine. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

Information on likely routes of exposure

| internation on more routed of t | | | |
|--|---|--|--|
| Inhalation | Dust may irritate respiratory system. Prolonged inhalation may be harmful. | | |
| Skin contact | Dust or powder may irritate the skin. | | |
| Eye contact | Dust may irritate the eyes. | | |
| Ingestion | Expected to be a low ingestion hazard. | | |
| Symptoms related to the physical, chemical and toxicological characteristics | Dusts may irritate the respiratory tract, skin and eyes. | | |
| nformation on toxicological eff | fects | | |
| Acute toxicity | Not known. | | |
| Components | Species Test Results | | |
| Aluminum Oxide, Non-fibrous (CA | AS 1344-28-1) | | |
| <u>Acute</u> | | | |
| Oral | | | |
| LD50 | Rat > 5000 mg/kg | | |
| Skin corrosion/irritation | Due to partial or complete lack of data the classification is not possible. | | |
| Serious eye damage/eye | Due to partial or complete lack of data the classification is not possible. | | |
| rritation | | | |
| Respiratory or skin sensitizatio | n Due to partial or complete lack of data the classification is not possible. | | |
| Respiratory sensitization | | | |
| Skin sensitization | Due to partial or complete lack of data the classification is not possible. | | |
| Germ cell mutagenicity | Due to partial or complete lack of data the classification is not possible. | | |
| Carcinogenicity | Due to partial or complete lack of data the classification is not possible. | | |
| Not listed. | Evaluation of Carcinogenicity ed Substances (29 CFR 1910.1001-1053) | | |
| Not listed. US. National Toxicology Pr Not listed. | ogram (NTP) Report on Carcinogens | | |
| Reproductive toxicity | Due to partial or complete lack of data the classification is not possible. | | |
| Specific target organ toxicity - single exposure | Due to partial or complete lack of data the classification is not possible. | | |
| Specific target organ toxicity - repeated exposure | Due to partial or complete lack of data the classification is not possible. | | |
| Aspiration hazard | Due to partial or complete lack of data the classification is not possible. | | |
| Chronic effects | Prolonged inhalation may be harmful. | | |
| 12. Ecological information | n | | |
| Ecotoxicity | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment | | |
| Persistence and degradability | No data is available on the degradability of any ingredients in the mixture. | | |
| Bioaccumulative potential | No data available. | | |
| Nobility in soil | No data available. | | |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. | | |
| 13. Disposal consideratio | ns | | |
| Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. | | |
| Local disposal regulations | Dispose in accordance with all applicable regulations. | | |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. | | |

disposal company.

| Waste from residues / unused products | | material and its containe | s. Empty containers or liners may i er must be disposed of in a safe m | |
|--|--|---|---|---------------------------------------|
| Contaminated packaging | Since emptied contain emptied. Empty conta disposal. | ers may retain product re iners should be taken to | esidue, follow label warnings even an approved waste handling site f | after container is or recycling or |
| 14. Transport information | | | | |
| DOT | | | | |
| Not regulated as dangerous go | oods. | | | |
| IATA | | | | |
| Not regulated as dangerous go | oods. | | | |
| Not regulated as dangerous go | oods. | | | |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. | | | |
| 15. Regulatory information | 1 | | | |
| US federal regulations | This product is not kno | own to be a "Hazardous (lard, 29 CFR 1910.1200. | Chemical" as defined by the OSH | A Hazard |
| Toxic Substances Control A | | | nts of the mixture are not on the T tive". | SCA 8(b) inventory |
| TSCA Section 12(b) Exp Not regulated. | ort Notification (40 CF | R 707, Subpt. D) | | |
| CERCLA Hazardous Substar | nce List (40 CFR 302.4 | .) | | |
| Not listed. SARA 304 Emergency releas | - | , | | |
| Not regulated. | | | | |
| OSHA Specifically Regulated | d Substances (29 CFR | 1910.1001-1053) | | |
| Not listed. | | | | |
| Superfund Amendments and Rea SARA 302 Extremely hazard | | 986 (SARA) | | |
| Not listed. | | | | |
| SARA 311/312 Hazardous | No | | | |
| chemical | | | | |
| SARA 313 (TRI reporting) | | | | |
| Chemical name | | CAS number | % by wt. | |
| Aluminum Oxide, Non-fibr | ous | 1344-28-1 | 60 - 100 | |
| Other federal regulations | | | | |
| Clean Air Act (CAA) Section | 112 Hazardous Air Po | ollutants (HAPs) List | | |
| Not regulated. | | | | |
| Clean Air Act (CAA) Section | 112(r) Accidental Rele | ease Prevention (40 CF | R 68.130) | |
| Not regulated. | N <i>i i i i</i> | | | |
| Safe Drinking Water Act (SDWA) | Not regulated. | | | |
| US state regulations | | | | |
| US. California. Candidate Ch (a)) | emicals List. Safer Co | onsumer Products Regu | ulations (Cal. Code Regs, tit. 22, | , 69502.3, subd. |
| Fiberglass (CAS 65997-1 | 7-3) | | | |
| California Proposition 65 | | | | |
| California Safe Drinking W is not known to contain an more information go to wv Consent Judgement 9958 Abrasives are exempt fror | y chemicals currently liv w.P65Warnings.ca.gov 93 issued on Septembe | sted as carcinogens or re /. According to the Super er 29, 2000 abrasive proc | eproductive toxins. For ior Court of California | |

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Australia | Australian Inventory of Industrial Chemicals (AICIS) | No |
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No |
| | | |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

| Issue date | 01-30-2023 |
|----------------------|--|
| Version # | 01 |
| Disclaimer | Saint Gobain Abrasives, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the mandatory requirements of WHMIS. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this form. If user requires independent information on ingredients in this or any other material, we recommend contact with the Canadian Centre for Occupational Health and Safety (CCOHS) in Hamilton, Ontario (1-800-263-8466) or CSST in Montreal, Quebec (514-873-3990). |
| Revision information | Product and Company Identification: Alternate Trade Names Hazard(s) identification: Response Toxicological information: Aspiration hazard Toxicological information: Carcinogenicity Toxicological information: Corrosivity Toxicological information: Eye contact Toxicological information: Mutagenicity Toxicological information: Reproductivity Toxicological information: Respiratory sensitization Toxicological information: Specific target organ toxicity - repeated exposure Toxicological information: Skin contact Toxicological information: Specific target organ toxicity - single exposure Regulatory information: California Proposition 65 Other information, including date of preparation or last revision: List of abbreviations |