Material Safety
DATA SHEET

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Alpha Professional Tools®

For chemical emergency spill, leak, fire, exposure or accident call (CHEMTREC) 800-424-9300. This MSDS complies with 29 CFR 1919.1200 (The OSHA Hazard Communication Standard).

Section 1: Identification

Product / Chemical Name:
Resin Bond Final Polishing Disc (WET ONLY)

Product Identification No: N/A
Chemical Family: N/A
Trade Name and Synonyms: N/A
Molecular Weight: N/A
Chemical Name: N/A
Chemical Formula: N/A
Recommended use: Wet polishing tool

Distributor Name:
Alpha Professional Tools®

Address:
103 Bauer Drive, Oakland, NJ 07436

Emergency Tel. No.:
800-648-7229

Section 2: Hazard(s) Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200; Physical Hazards Not classified

Physical Hazards Not classified

Health Hazards
Carcinogenicity: Category 1
Reproductive toxicity: Category 1
Specific target organ toxicity single exposure:
Category 1 (Lung)
Category 3 (Respiratory tract irritation)
Specific target organ toxicity repeated or prolonged exposure: Category 1 (Respiratory system, systemic toxicity)
Environmental Hazards
Hazardous to the aquatic environment (acute)
Category 2
Hazardous to the aquatic environment (chronic)
Category 2
Other Hazards No information
Signal word: Danger
Hazard Statement(s)
May cause respiratory irritation
May cause cancer
May damage fertility or the unborn child
Causes damage to lung
Causes damage to respiratory system, systemic toxicity through prolonged or repeated exposure
Toxic to aquatic life
Toxic to aquatic life with long lasting effects

Precautionary Statement(s) [Prevention]
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/ vapors/spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/ face protection.

[Emergency response]
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If exposed or concerned: Get medical advice/attention.
Call a poison center/doctor/if you feel unwell.
Collect spillage.

[Storage]
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
[Disposal]
Dispose of contents/container in accordance with local/ regional/national/international regulations.
Description of any hazards not otherwise classified;
No information
Ingredient with unknown acute toxicity in the mixture
Not applicable

Section 3: Composition/Information on Ingredients

Chemical name*	CAS No.	Concentration/concentration ranges (wt %)
Silica	14808-60-7	0-0.2
Carbon black	1333-86-4	0-3.5
Zinc oxide	1314-13-2	0-1
Styrene	100-42-5	0-0.2

*Grindstone part: This product consists of the adhesive (urethane resin) and base material part (plastic fastener and titanium dioxide) in addition to the grindstone part.

Section 4: First-Aid Measures

Necessary first-aid measures by relevant routes of exposure;

IF INHALED Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If symptoms continue, call a doctor/physician.

IF ON SKIN If the polishing debris and polishing water during polishing is attached to the skin. Rinse with water and soap.
If symptoms continue, call a doctor/physician.

IF IN EYES Immediately rinse cautiously with water for 15 - 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms continue, call a doctor/physician.

IF SWALLOWED Rinse mouth. Do not induce vomiting. Get medical advice/attention.

Most important symptoms/effects, acute and delayed;
May cause respiratory irritation
May cause cancer
May damage fertility or the unborn child
Causes damage to lung
Causes damage to respiratory system, systemic toxicity through prolonged or repeated exposure

Indication of immediate medical attention and special treatment needed, if necessary; No information

Section 5: Fire-Fighting Measures

Suitable (and unsuitable) extinguishing media;
Suitable extinguishing media:
Small fire: dry chemical, carbon dioxide, water spray, alcohol-resistant foam
Large fire: water spray, water spray, alcohol-resistant foam

Unsuitable extinguishing media
Applying direct water may be dangerous because fire may expand to surroundings.

Specific hazards arising from the chemical;
May ignite with frictional heat, sparks or flame.
In case of fire, irritating or corrosive decomposition products may be generated.

Special protective equipment and precautions for fire-fighters;
Move container to a safe area if it can be done without risk.
Cool containers with flooding quantities of water until well after fire is out.
Wear appropriate self-contained compressed air breathing apparatus and chemical protective clothing (heat resistance) when fire-fighting.
Since there is no effect of extinguishing by fire extinguishing media other than watering, use watering for large-scale fire.

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures;
Wear suitable protective equipment described in "Section 8: Exposure controls/personal protection".
Do not touch or walk through spilled material.
Keep out except responsible personnel.
Ventilate a closed place.
Avoid release into the environment because product may cause local effects.

Methods and materials for containment and cleaning up;
Sweep up scattered materials or vacuum them using a vacuum cleaner so as not to cause dust then collect them into an empty container.
Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).
Prevent to flowing into drains, sewers, basements or closed areas.

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Section 7: Handling and Storage

Precautions for safe handling Protective measures:
Install appropriate equipment and wear suitable protective apparatus described in "Section 8: Exposure controls/personal protection ".
Use this product with water injection device.
Use dust collector and local exhaust ventilation.
Install the device which can recover polishing water.
While the work is being carried out, keep the surface of the generated dust be covered with a layer of water by injecting water.
Use only outdoors or in a well-ventilated area.
Do not handle near open flame or under excess high temperature conditions.
Advice on general occupational hygiene:
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities
Technical measures:
After use, it is recommended that to wash away the polishing debris in the water, and store the tool in a dry area.

Incompatible materials:
Oxidizing agents, strong acids and strong bases

Conditions for safe storage:
Keep away from heat/sparks/open flames/hot surfaces.
Avoid sunlight. Store in a dry and cool place.

Packing material:
Use a sealed container.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits;
US OSHA PEL
(10 mg/m3)
%SiO2+2 (Respirable dust)
3.5 mg/m3 (Carbon black)
100 ppm (Styrene monomer)

ACGIH TLV-TWA (2014)
2 mg/m3 (Tin oxide as Sn)
0.025 mg/m3 (Silica, crystalline-α-quartz and cristobalite) (Respirable fraction)
3 mg/m3 (Carbon black) (Inhalable fraction)
2 mg/m3 (Zinc oxide) (Respirable fraction)
20 ppm (Styrene monomer)

ACGIH TLV-STEL (2014)
10 mg/m3 (Zinc oxide) (Respirable fraction)
40 ppm (Styrene monomer)

Appropriate engineering controls;
Install closed facilities or local exhaust ventilation systems.

Individual protection measures, such as personal protective equipment;

Respiratory protection
Wear appropriate protective mask or air aspirator as required.

Hand protection
Wear impervious protective gloves.

Eye protection
Wear safety glasses or goggles.

Skin and body protection
Wear impervious protective clothing.

Section 9: Physical and chemical properties

Appearance (physical state, color, etc.)
Cream, black molded solid
Odor Faint phenol odor
Odor threshold No information
pH No information
Melting point/freezing point No information
Initial boiling point and boiling range No information
Flash point No information
Evaporation rate No information
Flammability (solid, gas) No information

Upper/lower flammability or explosive limits No information
Vapor pressure No information
Vapor density No information
Relative density 2.0-4.0 (grindstone part)
Solubility (ies) Water: insoluble
Partition coefficient: n-octanol/water No information
Auto-ignition temperature No information
Decomposition temperature No information
Viscosity No information
Other information No information

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Section 10: Stability and Reactivity

Reactivity
Stable under normal handling condition.

Chemical stability
Stable under normal handling condition.

Possibility of hazardous reactions
No hazardous reaction expected under normal handling.

Conditions to avoid
Avoid sunlight. Store in a dry and cool place.

Incompatible materials
Oxidizing agents, strong acids and strong bases

Hazardous decomposition products
In case of fire, toxic decomposition products (carbon monoxide, etc.) may be generated.

Section 11: Toxicological Information

Symptoms related to the physical, chemical and toxicological characteristics;
Information on product: No information
Information on ingredients:
Silica
Carcinogenicity: IARC68 (1997) is classified into 1, NTP RoC (11th, 2005) is classified into K and industrial hygene academic recommendation (2005) is classified into 1.
Specific target organ toxicity single exposure: Its short-term exposure also affects the respiratory system in humans in case of high inhalation concentration although there is much little data compared with repeated exposure. There is description that the respiratory system and the kidney are affected in humans.

Carbon black
Acute toxicity (oral): Rat LD0 > 8,000 mg/kg
Acute toxicity (dermal): Rabbit LD50 > 3 gm/kg
Carcinogenicity: The substance is classified as Group 2B for IARC (Vol. 65, 93; 2010).
Specific target organ toxicity repeated exposure: Numerous epidemiological tests for carbon black workers were conducted. In workers exposed for long term (10 years and more), the following symptoms characteristic of the lung occurred; cough, sputum, chronic bronchitis, lung function disturbances, pneumoconiosis, emphysema, disturbance of lung perfusion, obstructive disturbance of ventilation, bronchial hyper-reactivity and decrease in airway resistance and expiratory flow.

Zinc oxide
Acute toxicity (oral): Rat LD50 >5,000 mg/kg
Acute toxicity (dermal): Rabbit LD50 >5,000 mg/kg
Acute toxicity (inhalation: dust/mist): Rat LC50 >5.7 mg/L/4h
Reproductive toxicity: In a rat test, the administration of 0.4% in diet for 21 days prior to mating until day 15 of gestation resulted in resorptions of all fetuses. In rats administered in diet from day 0 of gestation to day 14 of lactation, stillborn pups were observed at 2000 ppm and higher concentrations.
Specific target organ toxicity single exposure: Numerous cases of metal fume fever caused by inhalation exposure of zinc oxide micro dusts are reported and symptoms such as cough, chest pain, chill, fever, dyspnea, muscular pain and nausea may occur.

Styrene
Acute toxicity (oral): Rat LD50 =5,000 mg/kg
Acute toxicity (inhalation: vapors): Rat LC50 =11.7mg/L/4h
Skin corrosion/irritation: There is the evidence of "moderate irritation" from rabbit skin irritation tests.
Serious eye damage/irritation: In the report on human epidemiological studies and rabbit eye irritation tests: "moderate irritation (for seven days)."
Germ cell mutagenicity: Based on the absence of data on germ cell multi-generation mutagenicity/mutagenicity tests in vivo, positive data on somatic cell mutagenicity tests in vivo (chromosome aberration tests, micronucleus tests), and the absence of data on germ cell genotoxicity tests in vivo (As for positive data on DNA single-strand break analysis (No.36) of the brain, liver, kidneys, lungs and testes of a mouse, an analysis was conducted exclusively on germ cells - the results of which are considered "ambiguous" by experts.).
Reproductive toxicity: Three-generation reproduction studies in rats suggest a decrease in the survival rates of F1 and F2 newborns at dose levels not toxic to F0; Developmental toxicity and lactational administration studies in rats suggest brain serotonin depletion, a delay in righting/auditory reflexes and many other behavioral abnormalities in offspring at dosing levels not toxic to dams.
Specific target organ toxicity single exposure: The human evidence including "eye/nose irritation, effects on the central nervous systems".
Specific target organ toxicity repeated exposure: The human evidence including "valid conclusions can be drawn neither from human cases nor from epidemiological studies because the unknown amount of exposure and the possibility of multiple exposure involving other substances" "Styrene causes 1) irritation to the eyes, skin, nose and larynx, 2) respiratory effects such as obstructive pulmonary disease and chronic bronchitis, 3) dizziness, headache, exhaustion and confusion, 4) adverse effects on the central nervous system (insomnia), the mental/nervous function (a delay in reaction time, debilitating linguistic memory, etc.), the visual and auditory senses, the blood systems (an increase in lymphocyte count, a decrease in platelet count, etc.) and the liver (an increase in AST/GGT/ALT activity, etc.)".
Aspiration hazard: Styrene is a hydrocarbon and has a dynamic viscosity of 0.772 mm2/s (25degC) (calculated value).

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Section 11: Toxicological Information (Cont.)

Delayed and immediate effects and also chronic effects from short- and long-term exposure;
May cause respiratory irritation
May cause cancer
May damage fertility or the unborn child
Causes damage to lung
Causes damage to respiratory system, systemic toxicity through prolonged or repeated exposure

Numerical measures of toxicity (such as acute toxicity estimates); Not applicable

Whether the chemical is listed in the NTP Report on Carcinogens or has been found to be a potential carcinogen in the IARC Monographs, or by OSHA;
IARC: Listed (Group 2B: Carbon black, Styrene, Group 1: Silica dust, crystalline, in the form of quartz or cristobalite)
NTP Report: Listed (Group K: Silica, crystalline (respirable size), Group R: Styrene)
OSHA: Not listed

Section 12: Ecological information

Ecotoxicity:
Information on product: No information

Information on ingredients:
Carbon black
Aquatic acute toxicity:
Algae (Scenedesmus) 72h-ErC50 > 10,000 mg/L
Crustacea (Daphnia magna) 24h-LC_{50} > 5,600 mg/L
Fish (Tribolodon hakonensis) 96h-LC_{50} > 1,000 mg/L
Aquatic chronic toxicity: No information

Zinc oxide
Aquatic acute toxicity: Crustacea (Daphnia magna) 48h-EC50=0.098 mg Zn/L
Aquatic chronic toxicity: Algae (Pseudokirchneriella subcapitata) 72h-NOEC=24 µg Zn/L

Styrene
Aquatic acute toxicity:
fish (Fathead Minnows)96h-LC_{50}=4.02mg/L
Aquatic chronic toxicity: No information

Persistence and degradability:
Information on product: No information

Information on ingredients:
Styrene
Biodegradability by BOD = 100%

Bioaccumulative potential:
Information on product: No information

Information on ingredients: No information

Mobility in soil:
Information on product: No information

Information on ingredients: No information

Other adverse effects:
No information

Section 13: DIsposal considerations

Waste treatment methods
Dispose of waste in accordance with applicable local, regional and international regulations and standards.
When disposing, consult to a certificated waste trader or local offices if they deal with the waste.

Used container should be recycled after cleaning or dispose of in compliance with related laws and local regulations.
Contents should be removed completely when dispose of empty containers.

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Section 14: Transport Information (non-mandatory)

UN number Not applicable
UN proper shipping name Not applicable
Transport hazard class(es) Not applicable
Packing group Not applicable
Environmental hazards Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and IBC code Not applicable

Special precautions for user
When transporting, avoid direct sunlight. Confirm no leakage to containers. When loading, prevent containers from falling, dropping off or damaging. Take preventive measures of collapse.

Section 15: Regulatory information

OSHA: Hazardous chemical
TSCA inventory: All ingredients in this product are listed on the TSCA Inventory.
TSCA SNUR: Not applicable
SARA Title III: Section 302 (Extremely Hazardous Substances): Not applicable
Section 304 (Hazardous Substances): Not applicable
Section 313 (TRI Chemicals): Styrene

Clean Air Act: This product does not contain any substances regulated as hazardous air pollutants under Section 112 of the Clean Air Act.
Clean Water Act: This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act

Section 16: Other Information

Update history:
Date of issue: 31th May, 2015

References:
Information of Sanwa Kenma, Ltd.
NITE GHS classification results (2015).
ACGIH, American Conference of Governmental Industrial Hygienists (2014) TLVs and BEIs.

[Disclaimer]
This SDS has been prepared based on the best available information however, it may not be sufficient in some cases. It is user's responsibility to modify or update any contents in this SDS regarding information on hazardous properties and/or instruction for safe handling of the product when they become available. Precautionary measures in this SDS are only applicable for normal handling conditions and it is necessary to take appropriate additional measures to ensure safe handling which depend on your specific use conditions or situations.

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