

MARK V LAB

Materials are regulated by OSHA’s Hazard Communication Standard, 29 CFR 1910. 1200

Section 1: Identification	1/1/2018
---------------------------	----------

*Product identifier: Rubber Bonded Abrasive Wheels / Products *Manufacturer information:

Mark V Lab
18 Kripes Rd.
East Granby, CT 06026
Phone: 860-653-7201

*Emergency phone number: (800) 424-9300

*Recommended use: Use where Cutting/Grinding/Blending/Polishing abrasive wheels needed

Section 2: Hazard(s) Identification

*Hazard classification: Not classified

*Signal word: None

*Hazard statement: None

*Pictograms: Not applicable *Precautionary statements:

Prevention - practice good industrial hygiene

Response - seek medical attention/counsel if you feel unwell

Storage - reference Section 7

Disposal - methods consistent with applicable Federal, State and Local Laws

*Hazards not otherwise classified: None known

*Mixture contains up to 20% of ingredients of unknown acute oral toxicity

Section 3: Composition/Information on Ingredients		
INGREDIENT	C.A.S. No.	% Concentration
Aluminum Oxide	1344-28-1	≤ 90
Silicon Carbide	409-21-2	≤ 90
Calcium Sulfate	13397-24-5 *(alt.10101-41-4)	≤ 20
Iron Oxide	1309-37-1	≤ 20
Natural Rubber	9006-04-6	≤ 20
Potassium Aluminum Fluoride	60304-36-1	≤ 20
Sulphur	7704-34-9	≤ 10
Limestone	1317-65-3	≤ 5
Zinc Oxide	1314-13-2	≤ 1

ARW product line may contain any or all of the above - on a batch-to-batch basis

Section 4: First-Aid Measures

- *Inhalation: Remove person to fresh air; if you feel unwell seek medical assistance
- *Skin contact: Wash with soap and water/laundry clothing; if you feel unwell, seek medical assistance
- *Eye contact: Flush with plenty of flowing water (do not rub eyes) holding eyelids open; if irritation continues, seek medical assistance especially if foreign material is in the eye
- *Ingestion: Not recommended - rinse out mouth; if you feel unwell seek medical assistance

page 1 of 5

page 2 of 5

- *Most important symptoms and effects (acute or delayed): In normal conditions of intended usage, not expected to be a health risk; if throat/respiratory irritation and coughing exist remove to fresh air - if persists seek medical assistance
- *Indication of immediate medical attention and special treatment: Generally not required

Section 5: Fire-Fighting Measures

- *Suitable extinguishing equipment: Water spray, foam or immersion, unless surrounding materials require otherwise
- *Special hazards that develop during a fire/hazardous combustion: Not applicable to product; surrounding materials may require special consideration and onsite evaluation/preparedness
- *Special protective equipment/precaution for firefighters: Use standard firefighting equipment and procedures, unless surrounding materials require otherwise

Section 6: Accidental release Measures

- *Personal precautions, protective equipment, and emergency procedures: Wear appropriate respirator, clothing, and eye protection and employ good industrial hygiene practices; if unwell, seek medical assistance
- *Methods and materials used for containment/clean up: Follow normal clean up procedure (sweep up or vacuum) while keeping the creation of dust to a minimum
- *Environmental precautions: Avoid discharge into the environment; reference Section 13 for disposal considerations

Section 7: Handling and Storage

- *Safe handling and general hygiene practices: Use only with adequate ventilation and avoid breathing dust. Wear appropriate respirator, clothing, and eye protection and employ good industrial hygiene practices; person to keep themselves and work area clean (reference OSHA's and ANSI standards)
- *Safe storage: Store flat, do not drop or bump; follow ANSI Standard B7.1

Section 8: Exposure Controls/Personal Protection

*Exposure limits	CAS No.	OSHA PEL	ACGIH TLV
Aluminum Oxide	1344-28-1	15 mg/m ³ TWA (total) 5 mg/m ³ TWA (resp)	5mg/m ³ TLV/TWA (resp)
Silicon Carbide	409-21-2	15 mg/m ³ TWA (total) 5 mg/m ³ TWA (resp)	10 mg/m ³ TLV/TWA (inh) 3 mg/m ³ TWA (resp)

Calcium Sulfate	(alt. 10101-41-4) 13397-24-5	15 mg/m ³ TWA(total) 5 mg/m ³ TWA (resp)	10 mg/m ³ TLV/TWA(inh) 5 mg/m ³ TWA (resp)
Iron Oxide	1309-37-1	10 mg/m ³ TWA (fume) (29 CFR 1910.1000)	5 mg/m ³ TWA (resp)
Potassium Al. Fluoride	60304-36-1	Fluoride: 2.5 mg/m ³ TWA Al: dust 15 mg/m ³ TWA Resp. Fractions: 5 mg/m ³	Fluoride: 2.5 mg/m ³ Al: dust 10 mg/m ³ Fumes: 5.0 mg/m ³
Sulphur	7704-34-9	15 mg/m ³ TWA (total) 5 mg/m ³ TWA (resp)	10 mg/m ³ TLV/TWA 3 mg/m ³ (resp)

TWA= Time Weighted Average (resp)= Respirable fraction (inh)= Inhalable fraction
TLV= Threshold Limit Values (total)= Total dust

Page 3 of 5

Limestone	1317-65-3	15 mg/m ³ TWA (total) 5 mg/m ³ TWA (resp)	10 mg/m ³ TLV/TWA (total)
Zinc Oxide	1314-13-2	15 mg/m ³ TWA (total) 5 mg/m ³ TWA (resp)	10 mg/m ³ TLV/TWA (total) 2 mg/m ³ TWA (resp)

*Appropriate engineering controls: Utilize appropriate local and general ventilation (water mist helps keep dust down) to keep airborne levels below exposure limits/keeping and maintaining TLV/ACGIH/PEL

*Recommended personal protective measures: Wear appropriate respirator, clothing, and eye protection as well as employ good industrial hygiene practices

** Inhalation - when air contaminants can exceed acceptable limits, use NIOSH approved respirator (OSHA 29CFR 1910.134 and ANSI standards ref.)

**Skin protection - use invulnerable gloves as required when skin contact is possible

**Eye protection - always wear protective glasses and/or face shield (OSHA 29CFR 1910.133)

**Other protection - hearing protection (OSHA 29CFR 1910.95) and clothing suitable for grinding and providing a local eyewash station.

**Recommendations - employ good work hygienic practices, reference American National Standards Institute (ANSI) B7.1 Safety requirements for the use, care and protection of abrasive wheels. Always wash hands, launder clothing/keeping work clothes separate from street clothes, always keep consumables away from work area and do not inhale grinding dust.

Section 9: Physical and Chemical Properties

* Appearance: black, grey, and/or brown/red in color - solid/flat wheel * Upper/lower flammability or explosive limits: not applicable

* Odor: low

* Vapor pressure: not applicable

* Odor threshold: not applicable

* Vapor density: not applicable

* pH: not applicable

* Solubility(ies): not applicable

- * Initial boiling point and boiling range: not applicable
- * Flash point: not applicable
- * Evaporation rate: not applicable
- * Flammability (solid, gas): not classified
- * Vapor pressure: not applicable
- * Vapor density: not applicable
- * Specific gravity: 1.8 - 2.5 (H₂O = 1)
- * Partition coefficient: n-octanol/water: not applicable
- * Auto-ignition temperature: not applicable
- * Decomposition temperature: Degradation starts @ 220⁰ C with 461.2⁰ C as final degradation temperature (NR)
- * Viscosity: not applicable

page 4 of 5

Section 10: Stability and Reactivity

- *Reactivity: considered non reactive during normal usage
- *Chemical stability: stable *Other:
- **Possibility of hazardous reactions - none known
- **Conditions to avoid - none known
- **Incompatible materials - none known
- **Hazardous decomposition products - dust during grinding could contain ingredients listed in Section 3 / material being ground/cut need to be evaluated for potential hazard

Section 11: Toxicological Information

Information in this section 11 may not be reflective as not all ingredients may be present or be below significant composition levels for relevant exposure consideration in the material as a whole

- *Routes of exposure:
- **Inhalation: dust/fumes may cause irritation to the respiratory system - symptoms may include coughing, sneezing with nose or throat pain
- **Ingestion: not expected under normal usage/conditions; may cause irritation to the gastrointestinal tract - symptoms may include abdominal pain
- **Skin contact: not expected under normal usage/conditions; may cause mechanical irritation - symptoms may include abrasion, redness, itching and/or pain
- **Eye contact: may cause mechanical eye irritation - symptoms may include pain with possible vision distortion
- *Chronic effects from short- and long-term exposure: long term overexposure to grinding dust may cause lung damage (fibrosis) demonstrated in coughing/shortness of breath/decreased breathing capacity; which can be further exacerbated by smoking or any respiratory condition. Attention should be drawn to the material being ground/cut, which must be evaluated on an itemby-item basis and may present a greater hazard.
- *Numerical measures of toxicity:

**Aluminum oxide: ATE (acute toxicity estimates) - LD50 > 5,000 mg/kg (oral rat), LC50 >7.6 mg/l (inhalation rat for 1 hr.)

**Silicon carbide: ATE - LD50 > 2,000 mg/kg (oral rat), LD50 > 2,000 mg/kg (Dermal rat)

*Potential carcinogen:

**NTP - components not listed

**IRAC Monographs - components not listed

**OSHA - components not listed

Section 12: Ecological Information (non-mandatory)

*Biodegradation and environmental fate of natural rubber: Insufficient data available to form a conclusion: expected to be minimal with possible variables (certain additives can promote or inhibit the biodegradation of rubber, as well as the vulcanization of rubber which can result in reduced water absorption and gas permeability). Possible release of Isoprene derivatives; carbon monoxide during biodegradation, however there is no firm data available here

*Bioaccumulation potential: no firm data available

page 5 of 5

Section 13: Disposal Considerations (non-mandatory)

*Disposal methods: landfill and/or incinerate in accord with applicable Federal, State and Local laws and regulations. It is virtually impossible (in a practical sense) to separate wheel dust/waste from waste of ground/cut material therefore it is the responsibility of waste producer to evaluate the hazard potential for disposal in compliance with all laws and regulations.

Section 14: Transportation Information (non-mandatory)

*UN number and Proper shipping name: none and not regulated

*Transport hazard and Packing group: none

*Not regulated per U.S. DOT, sea or air transport

Section 15: Regulatory Information (non-mandatory)

*Reporting of Mixtures Under EPCRA (SARA) Sections 311 and 312: not applicable (mfg. art.)

*SARA Title III, Section 313, 40 CFR Part 372: none found

*It should be noted that material ground and/or cut (including dust generated) should be evaluated and information derived applied to all applicable laws and regulations

Section 16: Other information

*Last revision: March 1, 2013 *This revision: May 27, 2015

*Disclaimer: The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is based on technical data the Abrasive Rubber Wheel Company believes reliable. It is intended for use by persons having technical skills and at their own discretion and risk. Since conditions of use are outside the control of Abrasive Rubber Wheel Company, no warranties, expressed or implied are made and no liability is assumed in connection with any use of this information. Any use of this data and information must be determined by

the user, and be used in accordance with Federal, State and Local laws and regulations.