

ITEM: 1AUB5 - Cut Off Wheel Type 27 4.5x0.045x7/

PICK REQ: 1086468420

MATERIAL SAFETY DATA SHEET (MSDS)

MSDS: B2874

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - B2874

Associated Grainger Item: 1AUB5 - Cut Off Wheel Type 27 4.5x0.045x7/

UA  
UNITED ABRASIVES, INC.  
MATERIAL SAFETY DATA SHEET  
RESINOID BONDED ABRASIVES  
MSDS#: 1/2

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTITY / TRADE NAME:  
GRINDING AND CUTTING WHEELS, RESINOID (TYPE 1, TYPE 27, TYPE 28, TYPE 29),  
CUP WHEELS (TYPE 11) CONES AND PLUGS (TYPE 16, TYPE 17 AND TYPE 18),  
MOUNTED POINTS, UA-MIX, UA-GFX, A36F, A54F.

PRODUCT USE:  
ABRASIVE MATERIALS USED FOR CUTTING AND GRINDING METALS. CONCRETE, MASONRY  
AND BUILDING MATERIALS.

MANUFACTURER:  
UNITED ABRASIVES, INC.  
P.O. BOX 75  
185 BOSTON POST ROAD  
WILLIMANTIC, CT 06226

INTERNET: WWW.UNITEDABRASIVES.COM

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EMERGENCY PHONE: (860) 456-7131

MSDS DATE OF PREPARATION: DECEMBER 2006

2. HAZARDS IDENTIFICATION

THIS PRODUCT IS A BLACK, BROWN OR REDDISH COLORED SOLID WHEEL WITH NO ODOR.

EMERGENCY OVERVIEW:  
MAY CAUSE EYE AND RESPIRATORY IRRITATION. DUST PARTICLES MAY CAUSE  
SERIOUS INJURY TO THE EYES.

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS #	%
ALUMINUM OXIDE	1344-28-1	0-70
AND/OR SILICON CARBIDE	409-21-2	0-70
AND/OR ZIRCONIUM OXIDE	1314-23-4	0-30
AND/OR CUBITRON	N/A	0-20
AND/OR TITANIUM DIOXIDE	13463-67-7	0-5
CURED PHENOLIC RESIN	N/A	5-20
AND/OR WOVEN FIBERGLASS	N/A	0-20
AND/OR CALCIUM CARBONATE	1317-65-3	0-2
AND/OR CALCIUM OXIDE	1305-78-8	0-5
AND/OR BARIUM SULFATE	7727-43-7	0-5
AND/OR SULFUR	7704-34-9	0-5
AND/OR ZINC SULFIDE	1314-98-3	0-5
AND/OR MAGNESIUM OXIDE	1309-48-4	0-5
AND/OR IRON OXIDE	1309-37-1	0-5
AND/OR GRAPHITE	7782-42-5	0-5
AND/OR IRON PYRITE	12068-85-8	0-20
AND/OR CRYOLITE	15096-52-3	1-10
AND/OR POTASSIUM FLUOROBORATE	14075-53-7	0-5

4. FIRST AID MEASURES

INGESTION: IF GRINDING DUST IS SWALLOWED, SEEK MEDICAL ATTENTION.

INHALATION:  
IF OVEREXPOSED TO GRINDING DUST, REMOVE VICTIM TO FRESH AIR AND GET MEDICAL  
ATTENTION.

EYE CONTACT:  
FLUSH EYES THOROUGHLY WITH WATER, HOLDING OPEN EYELIDS. GET MEDICAL  
ATTENTION IF IRRITATION PERSISTS. OBTAIN IMMEDIATE MEDICAL ATTENTION  
FOR FOREIGN BODY IN THE EYE.

SKIN CONTACT:  
WASH DUST FROM SKIN WITH SOAP AND WATER. LAUNDER CONTAMINATED CLOTHING  
BEFORE REUSE.

FLASH POINT: NON-COMBUSTIBLE

FLAMMABLE LIMITS:  
LEL: NOT APPLICABLE  
UEL: NOT APPLICABLE

EXTINGUISHING MEDIA:  
USE ANY MEDIA THAT IS APPROPRIATE FOR THE SURROUNDING FIRE.

SPECIAL FIREFIGHTING PROCEDURES: NONE NEEDED.

UNUSUAL FIRE AND EXPLOSION HAZARDS:  
THIS PRODUCT IS NOT COMBUSTIBLE, HOWEVER, CONSIDERATION MUST BE GIVEN  
TO THE POTENTIAL FIRE/EXPLOSION HAZARDS FROM THE BASE MATERIAL BEING  
PROCESSED. MANY MATERIALS CREATE FLAMMABLE/EXPLOSIVE DUSTS OR TURNINGS  
WHEN MACHINED OR GROUND.

HAZARDOUS COMBUSTION PRODUCTS: NONE KNOWN.

6. ACCIDENTAL RELEASE MEASURES

PICK UP, SWEEP UP OR VACUUM AND PLACE IN A CONTAINER FOR DISPOSAL. MINIMIZE  
GENERATION OF DUST. NOTIFY AUTHORITIES AS REQUIRED BY LOCAL, STATE AND  
FEDERAL REGULATIONS.

7. HANDLING AND STORAGE

RECOMMENDED WORK PRACTICES:  
USE ONLY WITH ADEQUATE VENTILATION. AVOID BREATHING DUST. WASH THOROUGHLY  
AFTER HANDLING AND USE, ESPECIALLY BEFORE EATING, DRINKING OR SMOKING.  
REFER TO ANSI B7.1, SAFETY REQUIREMENTS FOR THE USE, CARE AND PROTECTION OF  
ABRASIVE WHEELS FOR ADDITIONAL INFORMATION. CONSIDER POTENTIAL EXPOSURE TO  
COMPONENTS OF THE BASE MATERIALS OR COATINGS BEING GROUND. REFER TO OSHA'S  
SUBSTANCE SPECIFIC STANDARDS FOR ADDITIONAL WORK PRACTICE REQUIREMENTS  
WHERE APPLICABLE.

STORAGE:  
STORE IN ACCORDANCE WITH ANSI B7.1. PROTECT ABRASIVE WHEELS FROM DAMAGE.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

HAZARDOUS COMPONENT	OSHA PEL	ACGIH TLV
ALUMINUM OXIDE	15 MG/M3 (TOTAL DUST)	10 MG/M3
SILICON CARBIDE	15 MG/M3 (TOTAL DUST)	NONE ESTABLISHED
ZIRCONIUM OXIDE	5 MG/M3	5 MG/M3
CUBITRON	NONE ESTABLISHED	NONE ESTABLISHED
TITANIUM DIOXIDE	15 MG/M3 (TOTAL DUST)	10 MG/M3
CURED PHENOLIC RESIN	NONE ESTABLISHED	NONE ESTABLISHED
WOVEN FIBERGLASS	15 MG/M3 (TOTAL DUST)	1 F/CC
CALCIUM CARBONATE	15 MG/M3 (TOTAL DUST)	10 MG/M3
CALCIUM OXIDE	5 MG/M3	2 MG/M3
BARIUM SULFATE	15 MG/M3 (TOTAL DUST)	10 MG/M3
SULFUR	NONE ESTABLISHED	NONE ESTABLISHED
ZINC SULFIDE	NONE ESTABLISHED	NONE ESTABLISHED
MAGNESIUM OXIDE	15 MG/M3 (TOTAL DUST)	10 MG/M3
IRON OXIDE	10 MG/M3	5 MG/M3
GRAPHITE	15 MG/M3 (TOTAL DUST)	2 MG/M3 (RESPIRABLE FRACTION)
IRON PYRITE	NONE ESTABLISHED	NONE ESTABLISHED
CRYOLITE (AS FLUORIDES)	2.5 MG/M3	2.5 MG/M3
POTASSIUM FLUOROBORATE (AS FLUORIDES)	2.5 MG/M3	2.5 MG/M3

NOTE:  
CONSIDER ALSO COMPONENTS OF BASE MATERIALS AND COATINGS BEING GROUND.

VENTILATION:  
USE LOCAL EXHAUST OR GENERAL VENTILATION AS REQUIRED TO MINIMIZE EXPOSURE  
TO DUST AND MAINTAIN THE CONCENTRATION OF CONTAMINANTS BELOW THE TLVS.

RESPIRATORY PROTECTION:  
USE NIOSH APPROVED RESPIRATOR IF EXPOSURE LIMITS ARE EXCEEDED OR WHERE DUST  
EXPOSURES ARE EXCESSIVE. CONSIDER THE POTENTIAL FOR EXPOSURE TO COMPONENTS  
OF THE COATINGS OR BASE MATERIAL BEING GROUND IN SELECTING PROPER  
RESPIRATORY PROTECTION. REFER TO OSHA'S SPECIFIC STANDARDS FOR LEAD,  
CADMIUM, ETC. WHERE APPROPRIATE. SELECTION OF RESPIRATORY PROTECTION  
DEPENDS ON THE CONTAMINANT TYPE, FORM AND CONCENTRATION. SELECT AND USE  
RESPIRATORS IN ACCORDANCE WITH OSHA 1910.134 AND GOOD INDUSTRIAL HYGIENE  
PRACTICE.

GLOVES: CLOTH OR LEATHER GLOVES RECOMMENDED.

EYE PROTECTION:  
SAFETY GOGGLES OR FACE SHIELD OVER SAFETY GLASSES WITH SIDE SHIELDS.

OTHER:

PROTECTIVE CLOTHING AS NEEDED TO PREVENT CONTAMINATION OF PERSONAL CLOTHING. HEARING PROTECTION MAY BE REQUIRED.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: NOT APPLICABLE

PRESSURE (MMHg): NOT APPLICABLE

SOLUBILITY IN WATER: INSOLUBLE

VAPOR DENSITY (AIR = 1): NOT APPLICABLE

SPECIFIC GRAVITY: NOT APPLICABLE

EVAPORATION RATE: NOT APPLICABLE

MELTING POINT: NOT APPLICABLE

FLASH POINT: NON-COMBUSTIBLE

APPEARANCE AND ODOR:

BLACK, BROWN OR REDDISH COLORED SOLID WHEEL WITH NO ODOR.

10. STABILITY AND REACTIVITY

STABILITY: STABLE

INCOMPATIBILITY: NONE KNOWN.

HAZARDOUS DECOMPOSITION PRODUCTS:

DUST FROM GRINDING COULD CONTAIN INGREDIENTS LISTED IN SECTION 3 AND OTHER, POTENTIALLY MORE HAZARDOUS COMPONENTS OF THE BASE MATERIAL BEING GROUND OR COATINGS APPLIED TO THE BASE MATERIAL.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:

INGESTION:

NONE EXPECTED UNDER NORMAL USE CONDITIONS. SWALLOWING LARGE PIECES MAY CAUSE OBSTRUCTION OF THE GASTROINTESTINAL TRACT.

INHALATION: DUST MAY CAUSE RESPIRATORY IRRITATION.

EYE:

DUST MAY CAUSE EYE IRRITATION. DUST PARTICLES MAY CAUSE ABRASIVE INJURY TO THE EYES.

SKIN:

NONE EXPECTED UNDER NORMAL USE CONDITIONS. RUBBING PRODUCT ACROSS THE SKIN MAY CAUSE MECHANICAL IRRITATION OR ABRASIONS.

SENSITIZATION: THIS MATERIAL IS NOT KNOWN TO CAUSE SENSITIZATION.

HAZARD:

LONG-TERM OVEREXPOSURE TO RESPIRABLE DUST MAY CAUSE LUNG DAMAGE (FIBROSIS) WITH SYMPTOMS OF COUGHING, SHORTNESS OF BREATH AND DIMINISHED BREATHING CAPACITY. CHRONIC EFFECTS MAY BE AGGRAVATED BY SMOKING. PROLONGED OVEREXPOSURE TO FLUORIDES MAY CAUSE A BONE CONDITION, FLUOROSIS. PROLONGED EXPOSURE TO ELEVATED NOISE LEVELS DURING OPERATIONS MAY AFFECT HEARING. A GREATER HAZARD, IN MOST CASES, IS THE EXPOSURE TO THE DUST/FUMES FROM THE MATERIAL OR PAINTS/COATINGS BEING GROUND. MOST OF THE DUST GENERATED DURING GRINDING IS FROM THE BASE MATERIAL BEING GROUND AND THE POTENTIAL HAZARD FROM THIS EXPOSURE MUST BE EVALUATED.

CARCINOGENICITY:

TITANIUM DIOXIDE IS LISTED BY IARC AS A GROUP 2B CARCINOGEN (SUSPECTED HUMAN CARCINOGEN). NONE OF THE OTHER COMPONENTS IS LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY OSHA, NTP OR IARC.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

EMPLOYEES WITH PRE-EXISTING RESPIRATORY DISEASE MAY BE AT RISK FROM EXPOSURE.

ACUTE TOXICITY VALUES:

THIS PRODUCT AND ITS COMPONENTS ARE NOT ACUTELY TOXIC. THE ONLY ACUTE TOXICITY DATA AVAILABLE FOR THE COMPONENTS ARE LISTED BELOW.

ZINC SULFIDE:

LD50 ORAL RAT: >2 G/KG

LC50 INHALATION RAT: >5040 MG/M3/4 HR

LD50 SKIN RAT: >2 G/KG

CRYOLITE:

LD50 ORAL RAT: >5 G/KG

12. ECOLOGICAL INFORMATION

NO ECOLOGICAL DATA IS AVAILABLE FOR THIS PRODUCT. NO HAZARDS TO THE ENVIRONMENT ARE EXPECTED FROM THIS PRODUCT. HOWEVER, CONSIDERATION MUST BE GIVEN TO POTENTIAL ENVIRONMENT EFFECTS OF THE BASE MATERIAL BEING PROCESSED.

13. DISPOSAL CONSIDERATIONS

DISPOSE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE/PROVINCIAL AND FEDERAL REGULATIONS. LOCAL REGULATIONS MAY BE MORE STRINGENT THAN REGIONAL AND NATIONAL REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE WASTE GENERATOR TO DETERMINE THE TOXICITY AND PHYSICAL CHARACTERISTICS OF THE MATERIAL TO DETERMINE THE PROPER WASTE IDENTIFICATION AND DISPOSAL IN COMPLIANCE WITH APPLICABLE REGULATIONS.

14. TRANSPORT INFORMATION

DOT HAZARDOUS MATERIALS DESCRIPTION:

PROPER SHIPPING NAME: NOT REGULATED

UN NUMBER: NONE

HAZARD CLASS/PACKING GROUP: NONE

LABELS REQUIRED: NONE

15. REGULATORY INFORMATION

SARA SECTION 311/312 HAZARD CATEGORIES: NOT APPLICABLE

SARA SECTION 313:

SOME PRODUCTS CONTAIN THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372 (TOXIC CHEMICAL RELEASE REPORTING):

ZINC SULFIDE 1314-98-3 0-5%  
(AS ZINC COMPOUNDS)

\*ONLY IN TYPE 29 CHALLENGER FLEXIBLE GRINDING/BLENDING WHEELS

CALIFORNIA PROPOSITION 65:

WARNING:

YOU CREATE DUST WHEN YOU CUT, SAND, DRILL OR GRIND MATERIALS SUCH AS WOOD, PAINT, CEMENT, MASONRY OR METAL. THIS DUST OFTEN CONTAINS CHEMICALS KNOWN TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

CANADIAN WHMIS CLASSIFICATION:

NOT A CONTROLLED PRODUCT. THIS PRODUCT MEETS THE DEFINITION OF A "MANUFACTURED ARTICLE" UNDER THE WHMIS REGULATIONS.

THIS PRODUCT HAS BEEN CLASSIFIED UNDER THE CPR AND THIS MSDS DISCLOSES INFORMATION ELEMENTS REQUIRED BY THE CPR.

16. OTHER INFORMATION

NFPA HAZARD RATING:

HEALTH 1  
FIRE 0  
REACTIVITY 0

DATE PREVIOUS REVISION: 11/2003

DATE THIS REVISION: 12/13/06

REVISION SUMMARY:

SWITCHED SECTIONS 2 AND 3, SECTION 8: UPDATED EXPOSURE LIMITS

SECTION 11: UPDATED CARCINOGEN STATUS. COMPREHENSIVE REVIEW

PREPARED BY:

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WOODBIDGE, CT 06525

THE PRECEDING INFORMATION IS BELIEVED TO BE CORRECT AND CURRENT AS OF THE DATE OF PREPARATION OF THIS MATERIAL SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND THE CONDITIONS OF USE OF THIS PRODUCT ARE NOT WITHIN THE CONTROL OF UNITED ABRASIVES, INC., IT IS THE USER'S OBLIGATION TO ASSURE SAFE USE OF THIS PRODUCT.