



## MATERIAL SAFETY DATA SHEET

### SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUEHLER ALUMINUM OXIDE POWDER

IDENTIFICATION NUMBER: 40-6603-030-080, 40-6605-050-080, 40-6609-095-080, 40-6612-125-080, 40-6425-400-080, 40-6430-600-080

PRODUCT USE/CLASS: POLISHING COMPOUND

SUPPLIER:

BUEHLER, a division of Illinois Tool Works Inc.  
 41 WAUKEGAN ROAD  
 LAKE BLUFF, IL 60044

EMERGENCY: 800-424-9300

INFORMATION: 847-295-6500

PREPARER: Technical Department, 847-295-6500

PREPARE DATE: 4/03/2012, 03 April 2012

### SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%
01	Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	1344-28-1	100

ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL - CEILING	COMPANY TLV-TWA	SKIN
01	10mg/m <sup>3</sup>	N.E.	10mg/m <sup>3</sup>	N.E.	N.E.	NO

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

### SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Dust irritating to respiratory tract.

ACUTE EFFECTS – EYE CONTACT: Mechanical irritant. Contact may cause tearing and redness.

ACUTE EFFECTS - SKIN CONTACT: Mechanical irritant. Prolonged contact may cause skin abrasion.

ACUTE EFFECTS – INHALATION: Prolonged inhalation may be harmful.

ACUTE EFFECTS - INGESTION: Not expected to present a hazard in normal industrial use. No information.

CHRONIC OVEREXPOSURE EFFECTS: No information.

OTHER INFORMATION: No information.

PRIMARY ROUTE(S) OF ENTRY: INHALATION

### SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water. Get medical attention if irritation persists.

SKIN CONTACT: In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient.

Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

INHALATION: If symptoms occur, remove to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband.

Medical personnel may administer oxygen if breathing is difficult. Seek medical attention if symptoms persist.

INGESTION: If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN: Treat symptomatically.

## SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: N.A.

LOWER EXPLOSIVE LIMIT: N.A.

UPPER EXPLOSIVE LIMIT: N.A.

AUTOIGNITION TEMPERATURE: N.A.

EXTINGUISHING MEDIA: N.A.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

SPECIAL FIREFIGHTING PROCEDURES: Wear a NIOSH approved positive pressure self-contained breathing apparatus with full protective clothing. Do not release runoff from fire control methods to sewers or waterways.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Reclaim clean material. Contaminated material should be swept or shoveled into appropriate waste container and disposed of in accordance with applicable federal, state and local regulations.

## SECTION 7 – HANDLING AND STORAGE

HANDLING: Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.

STORAGE: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**RESPIRATORY PROTECTION:** If exposure levels are unknown, if levels exceed TLV/PEL, or if effects occur, use NIOSH-approved dust/mist respirator in accordance with applicable health and safety regulations and manufacturer's recommendations.

**SKIN PROTECTION:** Clean clothing to cover skin.

**EYE PROTECTION:** Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use.

**OTHER PROTECTIVE EQUIPMENT:** No information.

**HYGIENIC PRACTICES:** Follow good general industrial safety practices during use.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>BOILING RANGE:</b>	N.A.	<b>VAPOR DENSITY:</b>	Is lighter than air
<b>ODOR:</b>	None	<b>ODOR THRESHOLD:</b>	N.A.
<b>APPEARANCE:</b>	White powder	<b>EVAPORATION RATE:</b>	Is slower than Butyl Acetate
<b>SOLUBILITY IN H<sub>2</sub>O:</b>	Insoluble	<b>SPECIFIC GRAVITY:</b>	4
<b>VAPOR PRESSURE:</b>	N.A.	<b>pH @ 0.0%:</b>	N.A.
<b>PHYSICAL STATE:</b>	Solid	<b>VISCOSITY:</b>	N.A.
<b>COEFFICIENT OF WATER/OIL DISTRIBUTION:</b>	N.A.		

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

## SECTION 10 – STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** None known.

**INCOMPATIBILITY:** Reactive with oxidizing agents, acids.

Chlorine Trifluoride reacts violently with Aluminum Oxide producing a flame. Ethylene oxide may polymerize violently when in contact with highly catalytic surfaces such as pure Aluminum Oxide. Reacts with hot chlorinated rubber.

**HAZARDOUS DECOMPOSITION PRODUCTS:** No information.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**STABILITY:** This product is stable under normal storage conditions.

## SECTION 11 – TOXICOLOGICAL PROPERTIES

**Toxicity to Animals:** LD50: Not available. LC50: Not available.

**Chronic Effects on Humans:** CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH.

**TERATOGENIC EFFECTS:** Classified None for human.

**Other Toxic Effects on Humans:** Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Chronic Effects on Humans:** May cause cancer (tumorigenic) according to animal data. No human data found.

**Acute Potential Health Effects:** Skin: May cause skin irritation. Eyes: Nuisance Dust. Dust may cause mechanical eye irritation. Inhalation: Nuisance Dust. Material is irritating to mucous membranes and upper respiratory tract. May cause lung injury. Ingestion: May be harmful if swallowed. Ingestion of large amounts may cause gastrointestinal tract irritation. It is expected to be a low hazard for normal industrial handling.

## SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** If product becomes contaminated, follow disposal instructions for contaminant. Dispose of in accordance with federal, state and local regulations.

## SECTION 14 – TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not regulated	
DOT TECHNICAL NAME: N.A.	
DOT HAZARD CLASS: N.A.	HAZARD SUBCLASS: N.A.
DOT UN/NA CLASS: N.A.	PACKAGING GROUP: N.A.
	RESP. GUIDE PAGE:
INTERNATIONAL SHIPPING NAME: Not regulated	
INTERNATIONAL ID NUMBER: N.A.	
IMDG CLASS (1°, 2°): N.A.	IMDG PAGE NUMBER: N.A.
IMDG EMS: N.A.	IATA CLASS (1°, 2°): N.A.

## SECTION 15 – REGULATORY INFORMATION

OSHA: Non-hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

CERCLA – SARA HAZARD CATEGORY: THIS PRODUCT HAS BEEN REVIEWED, AND IS CONSIDERED, UNDER APPLICABLE DEFINITIONS, TO MEET THE FOLLOWING CATEGORIES: NONE

SARA SECTION 313: THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 AND 40 CFR PART 372:

CHEMICAL NAME -----CAS NUMBER

No SARA Section 313 components exist in this product.

TOXIC SUBSTANCE CONTROL ACT: THE CHEMICAL SUBSTANCES IN THIS PRODUCT ARE ON THE TSCA SECTION 8 INVENTORY. THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF TSCA 12(B) IF EXPORTED FROM THE UNITED STATES:

CHEMICAL NAME -----CAS NUMBER

No compounds found.

NEW JERSEY RIGHT-TO-KNOW: THE FOLLOWING MATERIALS ARE NON-HAZARDOUS, BUT ARE AMONG THE TOP 5 COMPONENTS IN THIS PRODUCT: NONE

PENNSYLVANIA RIGHT-TO-KNOW: THE FOLLOWING NON-HAZARDOUS INGREDIENTS ARE PRESENT IN THE PRODUCT AT GREATER THAN 3%: NONE

CALIFORNIA PROPOSTION 65: No Proposition 65 chemicals known to exist in this product.

## SECTION 15 – REGULATORY INFORMATION

CANADIAN WHMIS: THIS MSDS HAS BEEN PREPARED IN COMPLIANCE WITH CONTROLLED PRODUCT REGULATIONS EXCEPT FOR USE OF THE 16 HEADINGS.

CANADIAN WHMIS CLASS: NONE

COMPONENT RCRA CLASSIFICATIONS: Not regulated.

COMPONENT RCRA CODES: No information.

CERCLA RQ VALUE (MINIMUM): None known.

## SECTION 16 – OTHER INFORMATION

### HMIS RATINGS

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 3/23/2009, 23 March 2009

REASON FOR REVISION: Administrative change for new format. Revised section(s): 1, 2, 7, 6, 10, 11, 12, & 16

VOLATILE ORGANIC COMPOUNDS: 0 grams/ltr

### LEGEND:

N.A. – NO INFORMATION

N.E. – NOT ESTABLISHED

N.D. – NOT DETERMINED

ABBREVIATIONS: ACGIH = AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS; OSHA = OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION; TLV-TWA = THRESHOLD LIMIT VALUE – TIME WEIGHTED AVERAGE (8 HOURS); STEL = SHORT-TERM EXPOSURE LIMIT (15 MINUTES); C = CEILING VALUE; PEL = PERMISSIBLE EXPOSURE LIMIT

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