

MATERIAL SAFETY DATA SHEET

CALIFORNIA REAMER CO., INC.
12747 LOS NIETOS ROAD, SANTA FE SPRINGS, CA 90670
(562) 946-6377 • FAX: (562) 941-6404

Issue Date: 2-19-08

PRODUCT IDENTIFICATION : CARBIDE REAMERS

Percent by Weight

	CARBIDE TIPPED,	SOLID CARBIDE,	SOLID HEAD
CARBIDE :	1 - 10	100	70 - 30
STEEL :	90 - 99	-	70 - 30

HAZARDOUS INGREDIENTS

CARBIDE	Percent by Weight	OSHA PEL	ACGIH TLV
Tungsten Carbide (limits for Tungsten dust)	70-97%*	—	5 mg/m ³
Cobalt	3-25%*	0.1 mg/m ³	0.1 mg/m ³

*Depends on grade specifications

PHYSICAL DATA

Appearance and Odor:	Dark Gray Metal/No Odor	Specific Gravity (H ₂ O = 1):	11.0 to 15.5
Boiling Point:	N/A	Percent Volatile by Volume:	0
Vapor Pressure (mm Hg):	N/A	Evaporation Rate:	N/A
Vapor Density (Air = 1):	N/A	How Best Monitored:	Air sample
Solubility in Water:	Insoluble		

STEEL

% COMPOSITION BY WEIGHT (1)

ACGIH TLV (mg/m³) (2)

NOTE: PRODUCTS UNDER NORMAL CONDITIONS DO NOT REPRESENT AN INHALATION, INGESTION OR CONTACT HEALTH HAZARD.

Base Metal			
Iron (Fe)	86-99		5 (As Iron Oxide)
Alloying Elements			
Nickel (Ni)	<5	1	
Chromium (Cr)	<5	.5	
Silicon (Si)	<5	10 (Total Dust)	
Manganese (Mn)	<2	5 (As Dust-Ceiling)	
Carbon (C)	<2	None Established	
Molybdenum (Mo)	<2	10 (Insoluble Compound)	
Vanadium (V)	<2	10 (Total Dust)	
Aluminum (Al)	<2	10	
Sulfur (S)	<2	5 (As SO ₂)	
Phosphorus (P)	<1	None Established	
Bismuth (Bi)	<1	None Established	
Copper (Cu)	<1	1 (Dust & Mist)	
Leaded Alloy			
Lead (Pb)	<1	.05 (OSHA Lead Std.)	

(1) % OF ALLOYING MATERIAL VARIES WITH GRADE OF MATERIAL

(2) 1985-1986 ACGIH THRESHOLD LIMIT VALUE

SECTION 3 - PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS)	Solid	APPEARANCE AND ODOR	Gray-Black, Odorless
MELTING POINT (BASE METAL)	>2500°	SPECIFIC GRAVITY	Approximately 7

REACTIVITY DATA

Stability:

Unstable

Stable X

Conditions to Avoid: N/A

Incompatibility: Contact of dust with strong oxidizers may cause fire or explosions.

Materials to Avoid: Strong acids

Hazardous Decomposition Products: None**Hazardous Polymerization:**

May Occur

Will Not Occur X

Conditions to Avoid: N/A

SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled: Ventilate area of spill. Clean up using methods which avoid dust generation such as vacuum (with appropriate filter to prevent airborne dust levels which exceed the PEL or TLV), wet dust mop or wet clean-up. If airborne dust is generated, use an appropriate NIOSH approved respirator.

Waste Disposal Method: Dispose of in accordance with appropriate government regulations: May be sold as scrap for reclaim.

SPECIAL PROTECTION INFORMATION

Respiratory Protection: Use an appropriate NIOSH approved respirator if airborne dust concentrations exceed the appropriate PEL or TLV. All appropriate requirements set forth in 29 CFR 1910.134 should be met.

Ventilation: Use local exhaust ventilation which is adequate to limit personal exposure to airborne dust to levels which do not exceed the PEL or TLV. If such equipment is not available use respirators as specified above.

Protective Gloves: Protective gloves or Barrier cream are recommended when contact with dust or mist is likely. Prior to applying the Barrier cream or use of protective gloves, wash thoroughly.

Eye Protection: Safety glasses with side shields or goggles are recommended.

Other Protective Equipment: N/A

SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storage: Maintain good housekeeping procedures to prevent dust accumulation during grinding. Avoid dust inhalation and direct skin contact with dust.

Other Precautions: Clean up using methods which avoid dust generation such as vacuum (with appropriate filter to prevent airborne dust levels which exceed the PEL or TLV), wet dust mop or wet clean-up. If airborne dust is generated, use an appropriate NIOSH approved respirator.

Wash hands thoroughly after handling, before eating or smoking. Wash exposed skin at the end of work shift. Do not shake clothing, tags or other items to remove dust. Dust should be removed by washing or vacuuming (with appropriate filters) the clothing, rags, or other items.

Periodic medical examinations are recommended for individuals regularly exposed to dust or mist.

In welding, precautions should be taken for airborne contaminants which may originate from components of the welding rod.

Arc or spark generated when welding or burning could be a source of ignition for combustible and flammable materials.

Although CALIF REAMER has attempted to provide current and accurate information herein, CALIF REAMER makes no representations regarding the accuracy or completeness of the information and assumes no liability for any loss, damage, injury of any kind which may result from or arise out of the use of or reliance on the information by any person.

The conditions or methods of handling storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

In case of questions please call:

CALIFORNIA REAMER CO., INC.

12747 LOS NIETOS ROAD, SANTA FE SPRINGS, CA 90670
(562) 946-6377 • FAX: (562) 941-6404