



**MATERIAL SAFETY DATA SHEET**  
COMPLIES WITH 29 CFR 1910.1200.  
OSHA HAZARD COMMUNICATION RULE

**DATE OF LAST REVISION: 01-15-08**

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## CHEMICAL IDENTITY

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LABEL IDENTITY	<b>Cobalt Silicide</b>		
CHEMICAL NAME/SYNONYMS	<b>Cobalt Silicide; Cobalt Disilicide</b>		
FORMULA	<b>CoSi<sub>2</sub> and CoSi<sub>1.8</sub></b>		
CHEMICAL FAMILY	<b>Metal Silicide</b>		
CAS REGISTRY NUMBER	<b>12017-12-8</b>		
HAZARDOUS INGREDIENTS	<b>Cobalt Silicide</b>		
%	TLV	OSHA/PEL	
<b>0.0 - 100.0</b>	<b>.05 mg/m3</b>	<b>NE</b>	

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## PHYSICAL AND CHEMICAL PROPERTIES

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COLOR, FORM AND ODOR	<b>Metallic gray powder or pieces, no odor</b>
BOILING POINT	<b>NE</b>
DENSITY (gm/cc)	<b>NA</b>
VAPOR PRESSURE @ 20°	<b>NE</b>
% VOLATILE BY VOLUME (%)	<b>NA</b>
REACTION WITH WATER	<b>None</b>
EVAPORATION RATE (H2O=1)	<b>NA</b>
SOLUBILITY IN WATER	<b>Insoluble</b>
MELTING POINT	<b>1277.0C</b>
PHYSICAL STATE	<b>Solid</b>

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## FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT	<b>NE or NA</b>
AUTOIGNITION TEMPERATURE (°C)	<b>NA</b>
FLAMMABILITY	<b>Non flammable</b>
EXTINGUISHING MEDIA	<b>NA - Use suitable extinguishing media for surrounding materials and type of fire</b>
SPECIAL FIRE FIGHTING PROCEDURES	<b>Firefighters must wear full face, self-</b>
<b>contained</b>	<b>breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.</b>
UNUSUAL FIRE & EXPLOSION HAZARDS	<b>None recorded</b>



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### HEALTH HAZARD INFORMATION

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HMIS RATING:

HEALTH: **2** FLAMMABILITY: **0** REACTIVITY: **0** PERSONAL PROTECTION: **X**

ROUTES OF ENTRY: INHALATION: **Yes** SKIN: **Yes** INGESTION: **Yes** EYES: **Yes**

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **Pre-existing respiratory or skin disorders**

EFFECTS OF EXPOSURE (acute and chronic):

INHALATION: **May cause shortness of breath, labored breathing, coughing and loss of weight**

DERMAL: **May cause redness, itching and inflammation**

EYES: **May cause redness, itching and watering**

INGESTION: **Acute cobalt poisoning may cause: diarrhea, lower blood pressure and body temperature**

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CARCINOGENICITY:

NTP: **No**

IARC MONOGRAPHS: **No**

OSHA REGULATE: **No**

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EMERGENCY FIRST AID PROCEDURES:

INGESTION: **Give 1 to 2 glasses of milk or water and induce vomiting; seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.**

INHALATION: **Remove victim to fresh air; keep warm and quiet; give oxygen if breathing is difficult and seek medical attention.**

SKIN CONTACT: **Remove contaminated clothing; brush material off skin; wash affected area with mild soap and water; seek medical attention if symptoms persist.**

EYE CONTACT: **Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.**

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### REACTIVITY DATA

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STABILITY

**Stable**

CONDITIONS CONTRIBUTING TO UNSTABILITY

**None**

INCOMPATIBILITY (MATERIALS TO AVOID)

**None recorded**

HAZARDOUS DECOMPOSITION PRODUCTS

**None recorded**

HAZARDOUS POLYMERIZATION

**Will Not Occur**

CONDITIONS TO AVOID

**None**



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### SAFE HANDLING AND USE

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: **Wear appropriate respiratory and protective equipment specified in section VIII-control measures. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.**

WASTE DISPOSAL METHOD: **Dispose of in accordance with applicable federal, state and local regulations.**

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### SPECIAL PROTECTIVE INFORMATION

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RESPIRATORY PROTECTION	<b>Wear NIOSH-approved respirator</b>
LOCAL EXHAUST	<b>Maintain concentration at low concentrations.</b>
MECHANICAL (general)	<b>Recommended</b>
PROTECTIVE GLOVES	<b>Rubber Gloves</b>
EYE PROTECTION	<b>Safety glasses</b>
OTHER PROTECTIVE EQUIPMENT	<b>Protective gear suitable to prevent contamination.</b>
WORK/HYGIENIC/MAINTENANCE PRACTICES	<b>Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.</b>

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### SPECIAL PRECAUTIONS

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PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE: **None**

PRECAUTIONARY LABELING: **Store in cool, dry area. Store in tightly sealed container. Wash thoroughly after handling**

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**NA= NOT APPLICABLE**

**NE= NOT ESTABLISHED**

**NR=NOT RECORDED**