GOODSON
Tools and Supplies for Engine Builders
156 Galewski Drive • Winona, MN 55987-0847
Toll-Free 1-800-533-8010 • Local 507-452-1830 • www.goodson.com

WCD-103, WCD-503, WCD-2503
Magnetic Crack Detection Powder
Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Identification

Product Identifier	:	SIR-CHEM® DRY POWDER 63 RED
Other Means of Identification	:	WCD-103, WCD-503, WCD-2503
Recommended Use	:	Non-destructive testing.
Recommended restrictions	:	None known.

1.2. Manufacturer/Importer/Supplier/Distributor

Distributor	:	Goodson Manufacturing Company 156 Galewski Drive Winona, MN 55987-0847 - USA T 507-452-1830
Emergency Phone Number	:	800-924-6804 (24 hours)

SECTION 2: Hazard(s) Identification

Physical Hazards	:	Not classified
Health Hazards	:	Not classified
OSHA Defined Hazards	:	Combustible Dust

2.1. Label elements

Hazard Symbol	:	None
Signal Word	:	Warning
Hazard Statement	:	May form combustible dust concentrations in air

2.2. Precautionary Statement

Prevention	:	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Prevent dust accumulation to minimize explosion hazard.
Response	:	Remove and wash contaminated clothing before re-use. In case of fire: Use appropriate media for extinction.
Storage	:	Store away from incompatible materials.
Disposal	:	Dispose of contents/containers in accordance with local/regional/national/international regulations.
Hazard(s) Not Otherwise Classified	:	Not classified.
Supplemental Information	:	Not applicable.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical Name	CAS Number	%
Iron Powder	007439-89-6	> 95%
Pigment Red	005160-02-1	< 3%

SECTION 4: First Aid Measures

Inhalation	:	Move to fresh air. Call a physician if symptoms develop or persist.
Skin Contact	:	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye Contact	:	Do not rub eyes. Rinse with water. Get medical attention or irritation develops and persists.
Ingestion	:	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	:	Dust may cause eye, skin and respiratory tract irritation.

SECTION 4: First Aid Measures (cont.)

Indication of Immediate Medial Attention and Special Treatment Needed

: Provide general supporting measures and treat symptomatically.

General Information : Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media : Water fog. Foam. Dry chemical powder. Carbon Dioxide (CO2). Apply extinguishing media carefully to avoid creating airborne dust.

Unsuitable Extinguishing Media : Do not use water jet as an extinguisher as this will spread the fire.

Special Hazards Arising From the Chemical : Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

Special Protective Equipment and Precautions for Firefighters : Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting Equipment/Instructions : In case of fire and/or explosion, do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

General Fire Hazards : Heat may cause the containers to explode. May form combustible dust concentrations in air.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures : Keep unnecessary personnel away. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Use only non-sparking tools. Wear appropriate personal protective equipment. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Methods and Materials for Containment and Cleaning Up : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Large spills: Sweep or shovel up material and place in a clearly labeled containers for waste. Following product recovery, flush area with water.

Small Spills: Collect dust using a vacuum cleaner equipped with HEPA filter.

Never return spills to original containers for re-use. For waste disposal, see Section 13 of the this SDS.

Environmental Precautions : Avoid discharge into drains, water courses or onto the ground.

SECTION 7: Handling and Storage

Precautions for safe handling : Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Explosion proof exhaust ventilation is recommended. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid prolonged exposure.

Conditions for Safe Storage, Including Any Incompatibilities : Keep containers tightly closed in a dry, cool and well-ventilated location. Store away from incompatible materials (see Section 10 of this SDS). Keep away from heat, sparks and open flames.

SECTION 8: Exposure controls/personal protection

Occupational Exposure Limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)			
Components	**CAS Number**	**Type**	**Value**
Pigment Red	005160-02-1	PEL	0.5mg/m3
US ACGIH Threshold Limit Values			
Components	**CAS Number**	**Type**	**Value**
Pigment Red	005160-02-1	TWA	0.5mg/m3
US NIOSH Pocket Guide to Chemical Hazards: Recommended Exposure Limit (REL)			
Components	**CAS Number**	**Type**	**Value**
Pigment Red	005160-02-1	TWA	0.5mg/m3
US Workplace Environmental Exposure Level (WEEL) Guides			
Components	**CAS Number**	**Type**	**Value**
Pigment Red	005160-02-1	TWA	1.0mg/m3

Biological Limit Values : No biological exposure limits noted for the ingredient(s).

Exposure Guidelines : No exposure standards allocated.

Appropriate Engineering Controls : Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not be established, maintain airborne levels to an acceptable level.

Individual Protection Measures, Such as Personal Protective Equipment

Eye/Face Protection : Wear safety glasses with side shields (or goggles).

Skin Protection (Hands) : For prolonged or repeated skin contact use suitable protective gloves.

Skin Protection (Other) : Wear suitable protective clothing.

Respiratory Protection : If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal Hazards : Wear appropriate thermal protective clothing when necessary.

General Hygiene Considerations : When using, do not eat, drink or smoke. Always observe good personal hygiene measures such as washing after handling material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: Physical and Chemical Properties

Physical state : Solid

Form : Powder

Color : Red

Odor : Odorless

Odor threshold : Not available

pH : Not available

Melting Point / Freezing Point : 2795°F (1535°C)

Initial Boiling Point & Boiling Range : Not available.

Flash point : Not relevant.

Evaporation rate : Not relevant.

Flammability (solid, gas) : Not available.

SECTION 9: Physical and Chemical Properties (cont.)

Upper/Lower Flammability or Explosive Limits		
Flammability Limit - Lower (%)	:	Not relevant.
Flammability Limit - Upper (%)	:	Not relevant.
Explosive Limit - Lower (%)	:	Not available.
Explosive Limit - Upper (%)	:	Not available
Vapor Pressure	:	Not relevant.
Vapor Density	:	Not relevant.
Specific Gravity	:	2.5 (68ºF (20ºC))
Solubility(ies)	:	Insoluble in water
Partition Coefficient; n-octanol/water	:	Not relevant.
Auto-ignition temperature	:	Not relevant.
Decomposition temperature	:	Not available.
Viscosity	:	Not relevant.
VOC (Weight %)	:	Not applicable.

SECTION 10: Stability and reactivity

Reactivity	:	This product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability	:	Material is stable under normal conditions.
Possibility of Hazardous Reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to Avoid	:	Keep away from heat, sparks and open flame. Minimize dust generation and accumulation. Contact with incompatible materials.
Incompatible Materials	:	Strong oxidizing agents.
Hazardous Decomposition Products	:	No hazardous decomposition products are known.

SECTION 11: Toxicological Information

Information on Likely Routes of Exposure

Ingestion	:	Expected to be low ingestion hazard.
Inhalation	:	Inhalation of dusts may cause respiratory irritation.
Skin Contact	:	Dust or powder may irritate the skin.
Eye Contact	:	Dust may irritate the eyes.
Symptoms Related to the Physical, Chemical and Toxicological Characteristics		
	:	Dust may cause eye, skin and respiratory tract irritation.

Information on Toxicological Effects

Acute Toxicity	:	Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Components	CAS	Species	Test Results	Acute
Iron Powder	007439-89-6	Rat	Oral LD_{50}	30 g/kg

Skin Corrosion / Irritation	:	Prolonged skin contact may cause temporary irritation.
Serious Eye Damage/Eye Irritation	:	Direct contact with eyes may cause temporary irritation.
Respiratory Sensitization	:	Not a respiratory sensitizer.
Skin Sensitization	:	This product is not expected to cause skin sensitization.
Germ Cell Mutagenicity	:	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

SECTION 11: Toxicological Information (cont.)

Carcinogenicity	:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA. IARC Monographs. Overall Evaluation of Carcinogenicity Pigment Red (CAS 005160-02-1): 3 Non-Classifiable as to carcinogenicity to humans.
Reproductive Toxicity	:	This product is not expected to cause reproductive or developmental effects.
Specific Target Organ Toxicity (Single Exposure)	:	Not classified.
Specific Target Organ Toxicity (Repeated Exposure)	:	Not classified.
Aspiration Hazard	:	Not an aspiration hazard.
Chronic Effects	:	Prolonged inhalation may be harmful.

SECTION 12: Ecological Information

Ecotoxicity	:	This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and Degradability	:	No data is available on the degradability of this product.
Bioaccumulative Potential	:	No data is available for this product.
Mobility in Soil	:	Not available.
Other Adverse Effects	:	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal Considerations

Disposal Instructions	:	Collect and reclaim or dispose of in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Waste From Residues/Unused Product	:	Dispose in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see above).

SECTION 14: Transport Information

DOT (US)	:	Not regulated as dangerous goods.
IMDG	:	Not regulated as dangerous goods.
IATA	:	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable.

SECTION 15: Regulatory Information

U.S. Federal Regulations : This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt D)
Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SECTION 15: Regulatory Information (cont.)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories : Immediate Hazard (No)
Delayed Hazard (No)
Fire Hazard (Yes)
Pressure Hazard (No)
Reactivity Hazard (No)

SARA 302 Extremely Hazardous Substance
: Not Listed

SARA 311/312 Hazardous Chemical : Yes

SECTION 15: Regulatory Information (cont.)

SARA 313 (TRI Reporting)

Chemical Name	CAS Number	% by Wt.
Pigment Red	005160-02-1	< 3%

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
: Pigment Red (CAS 005160-02-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CRF 68.130)
: Not regulated.

Safe Drinking Water Act (SDWA) : Not regulated.

US State Regulations

US. Massachusetts RTK - Substance List	Not Regulated
US New Jersey Worker & Community Right-to-Know Act	Pigment Red (CAS 005160-02-1) 500 lbs.
US Pennsylvania RTK - Hazardous Substances	Not Regulated
US Rhode Island RTK	Not Regulated
US California Proposition 65	WARNING: This product contains a chemical known to the State of California to cause cancer.
US California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed Substance	Pigment Red (CAS 005160-02-1)

International Inventories

Country(s) or Region	Inventory Name	Listed (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
US & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory)	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: Other Information

Issue Date	:	October 29, 2013
Revision Date	:	December 15, 2017
Version Number	:	03
Further Information	:	Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids, for safe handling
HMIS® Ratings	:	Health: 1, Flammability: 1, Physical Hazard: 0
List of Abbreviations	:	LD50: Lethal Dose 50% PEL: Permissible Exposure Limit TWA: Time Weighted Average
References	:	HSDB® - Hazardous Substances Data Bank
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End of SDS