SAFETY DATA SHEET

Revision: 2.0 Date: 26.08.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

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1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name	RS-200-CK Cement (Grip Cement Powder)
Chemical Name	Mixture
CAS No.	Mixture
EINECS No.	Mixture
REACH Registration No.	None assigned.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Adhesives.
Uses Advised Against	None known.

1.3 Details of the supplier of the safety data sheet

Company Identification	VISHAY MEASUREMENTS GROUP, INC. Post Office Box 27777 Raleigh, NC 27611 USA
Telephone	919-365-3800
Fax	919-365-3945
E-Mail (competent person)	mm.us@vishaypg.com

1.4 Emergency telephone number

1-800-424-9300
CHEMTREC

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 GHS Classification

Skin Irrit. 2; H315
Skin Sens. 1; H317
Eye Irrit. 2; H319
Aquatic Acute 1; H400

2.2 Label elements

GHS Classification

Product Name: RS-200-CK (Grip Cement Powder)

Hazard Pictogram(s):

Signal Word(s): Warning

Contains: Dibenzoyl Peroxide

Hazard Statement(s):

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H400: Very toxic to aquatic life.

Precautionary Statement(s):

P261: Avoid breathing dust.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.

2.3 Other hazards May form explosive dust/air mixtures.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTSDirect water jet may spread the fire.

3.1 Substances Not applicable

3.2 Mixtures

GHS Classification

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Calcium Tungstate	60 - 70	7790-75-2	232-219-4	None assigned.	Not classified
2-Propenoic acid, 2-methyl-, methyl ester, homopolymer	< 25	9011-14-7	618-466-4	None assigned.	Not classified
2-Butenedioic acid (2Z)-, polymer with chloroethene and ethenyl acetate	5 - 15	9005-09-8	-	None assigned.	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335
Dibenzoyl Peroxide	< 10	94-36-0	202-327-6	None assigned.	Org. Perox. B; H241 Skin Sens. 1; H317 Eye Irrit. 2; H319 Aquatic Acute 1; H400 (M-factor = 10)

H241: Heating may cause a fire or explosion. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H400: Very toxic to aquatic life. M-factor**:** multiplying factor**.**

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation — IF INHALED: Remove person to fresh air and keep comfortable for breathing. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Apply artificial respiration only if patient is not breathing or under medical supervision. Get medical advice/attention if you feel unwell.

Skin Contact — IF ON SKIN: Brush off loose particles from skin. Remove contaminated clothing and wash affected skin with water. Contaminated clothing should be thoroughly cleaned. If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion — IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Mechanical irritation of the respiratory tract.

4.3 Indication of any immediate medical attention and special treatment needed Treat symptomatically.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media — As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray.

Unsuitable extinguishing media — Direct water jet may spread the fire. Avoid dust generation.

5.2 Special hazards arising from the substance or mixture May form explosive dust/air mixtures. May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide, Acrid smoke and

Methylmethacrylate.

5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Avoid breathing dust. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See Section: 8.

6.2 Environmental precautions

Do NOT wash away into sewer. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Wet the material with water to limit dust emission or explosion. Sweep spilled substances into containers if appropriate moisten first to prevent dusting. Caution - spillages may be slippery. Use only non-sparking tools. Clean up spill with a detergent. Transfer to a container for disposal. Dispose of this material and its container as hazardous waste.

6.4 Reference to other sections

See Section: 8, 13

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure adequate ventilation. Avoid breathing dust. In case of inadequate ventilation wear respiratory protection. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Take precautionary measures against static discharge. Protect from light.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed and in a well-ventilated place. Keep away from heat, sources of ignition and direct sunlight. Take precautionary measures against static discharge.

Storage temperature	5 - 25°C
Storage life	Stable under normal conditions.
Incompatible materials	Keep away from: Reducing agents (Amines) and Polymerisation catalysts such as peroxy or azo compounds, strong acids, alkalis, oxidising agents and metal salts.

7.3 Specific end use(s)

Adhesives.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Dibenzoyl peroxide	94-36-0	-	5	-	-	NIOSH
Dibenzoyl peroxide	94-36-0	-	5	-	-	OSHA

Note: OSHA 1910.1000 Table Z-1 / NIOSH

8.1.2 Biological limit value

Not established.

8.1.3 PNECs and DNELs

Not established.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure adequate ventilation or use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit. The electrical system should be spark-free. Guarantee that the eye flushing systems and safety showers are located close to the working place.

8.2.2	**Individual protection measures, such as personal protective equipment (PPE)**	General hygiene measures for the handling of chemicals are applicable. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place.
	Eye/ face protection 	Wear eye protection with side protection (EN166).
	Skin protection 	Hand protection: Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. The gloves type used must be chosen based on the work activity and duration as well as concentration/quantity of material being handled. Body protection: Wear dustproof working clothes. Recommended: Wear work clothes with long sleeves.
	Respiratory protection 	In case of inadequate ventilation wear respiratory protection. An approved dust mask should be worn if dust is generated during processing or handling.
	Thermal hazards	Not applicable.
8.2.3	**Environmental Exposure Controls**	Avoid release to the environment.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	White powder
Odour	Characteristic
Odour threshold	Not available.
pH	Not established.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	5 (H_2O = 1)
Solubility(ies)	Slightly soluble in: Water
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Dynamic viscosity	Not applicable.
Explosive properties	Not available.
Oxidising properties	Not oxidising.

9.2 Other information None.

10. SECTION 10: STABILITY AND REACTIVITY

10.1	**Stability and reactivity**	Stable under normal conditions.
10.2	**Chemical stability**	May polymerise on exposure to light.
10.3	**Possibility of hazardous reactions**	May form flammable dust clouds in air. Reacts with oxidizing substances.

10.4	**Conditions to avoid**	Keep away from heat, sources of ignition and direct sunlight.
10.5	**Incompatible materials**	Keep away from: Reducing agents (Amines) and Polymerisation catalysts such as peroxy or azo compounds, strong acids, alkalis, oxidising agents and metal salts.
10.6	**Hazardous decomposition product(s)**	May decompose in a fire, giving off toxic and irritant vapours. Acrid smoke, Carbon monoxide, Carbon dioxide and Methylmethacrylate.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects (Substances in preparations / mixtures)

Acute toxicity

Ingestion	Based upon the available data, the classification criteria are not met. LC50 > 2000 mg/kg bw/day
Inhalation	Based upon the available data, the classification criteria are not met. LC50 (Dusts) > 5 mg/kg bw/day
Dermal	Based upon the available data, the classification criteria are not met. LC50 > 2000 mg/kg bw/day
Skin corrosion/irritation	Skin Irrit. 2: Causes skin irritation.
Serious eye damage/irritation	Eye Irrit. 2: Causes serious eye irritation.
Respiratory or skin sensitization	Skin Sens. 1: May cause sensitization by skin contact.
Germ cell mutagenicity	Based upon the available data, the classification criteria are not met.
Carcinogenicity	Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Based upon the available data, the classification criteria are not met.
STOT - single exposure	Based upon the available data, the classification criteria are not met.
STOT - repeated exposure	Based upon the available data, the classification criteria are not met.
Aspiration hazard	Based upon the available data, the classification criteria are not met.

11.2 Other information

NTP Report on Carcinogens	Not listed
IARC Monographs	Not listed

12. SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Aquatic Acute 1: Very toxic to aquatic life. Estimated Mixture LC50 < 1 mg/l (Fish).
12.2	**Persistence and degradability**	The product has low potential for bioaccumulation.
12.3	**Bioaccumulative potential**	The product has no potential for bioaccumulation.
12.4	**Mobility in soil**	The product is predicted to have low mobility in soil. (Slightly soluble.)
12.5	**Results of PBT and vPvB assessment**	Not classified as PBT or vPvB.
12.6	**Other adverse effects**	None known.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	Do not release undiluted and unneutralised to the sewer. This material and its container must be disposed of as hazardous waste.
13.2	**Additional Information**	Dispose of contents in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

		ADR/RID / IMDG / IATA
14.1	**UN number**	UN 3077
14.2	**Proper Shipping Name**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Dibenzoyl Peroxide)
14.3	**Transport hazard class(es)**	9
14.4	**Packing group**	III
14.5	**Environmental hazards**	Classified as a Marine Pollutant/ Environmentally hazardous substance
14.6	**Special precautions for user**	See Section: 2
14.7	**Transport in bulk according to Annex II of MARPOL**	Not applicable.

	73/78 and the IBC Code	
14.8	**Additional Information**	None.

15. SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	
15.1.1	**National regulations**	
	OSHA Occupational Safety and Health Standards	None.
15.1.2	**European regulations**	
	Substance(s) of Very High Concern (SVHCs)	None.
	Authorisations and/or Restrictions On Use	None.
	Wassergefährdungsklasse (Germany)	Water hazard class: 1
15.2	**Chemical Safety Assessment**	Not available.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

References: Existing Safety Data Sheet (SDS), Harmonised Classification(s) for Dibenzoyl Peroxide (CAS No.94-36-0), Existing ECHA registration(s) for Dibenzoyl Peroxide (CAS No.94-36-0), and the Classification and Labelling Inventory for Calcium Tungstate (CAS No.7790-75-2), 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CAS No.9011-14-7) and 2-Butenedioic acid (2Z)-, polymer with chloroethene and ethenyl acetate (CAS No.9005-09-8).

GHS Classification of the substance or mixture	Classification Procedure
Skin Irrit. 2; H315	Threshold Calculation
Skin Sens. 1; H317	Threshold Calculation
Eye Irrit. 2; H319	Threshold Calculation
Aquatic Acute 1; H400	Summation Calculation

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	PBT: Persistent, Bioaccumulative and Toxic
vPvB	vPvT: very Persistent and very Toxic
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
OSHA	The Occupational Safety & Health Administration
NIOSH	National Institute for Occupational Safety and Health

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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Annex to the extended Safety Data Sheet (eSDS)

No information available.