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

1.1 Product identifier

Product Name	RS-200-CK2 Part A

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

Identified Use(s)	Adhesives
Uses Advised Against	Anything other than the above.

1.3 Details of the supplier of the safety data sheet

Company Identification	VISHAY MEASUREMENTS GROUP UK LTD Stroudley Road Basingstoke Hampshire RG24 8FW United Kingdom
Telephone	+44 (0) 1256 462131
Fax	+44 (0) 1256 471441
E-Mail (competent person)	mm.uk@vishaypg.com

1.4 Emergency telephone number

Emergency Phone No.	(00-1) 703-527-3887	CHEMTREC (24 hours)
Languages spoken	All official European languages.	

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Skin irrit. 2; H315
Skin Sens. 1; H317
Eye Irrit. 2; H319
STOT SE. 3; H335
Aquatic Chronic 2; H411

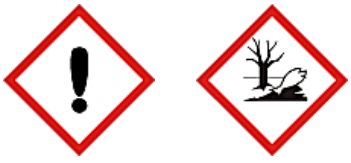
2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name: RS-200-CK2 Part A

Contains: 2-(chloromethyl)oxirane; Formaldehyde; Phenol and 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane and 1,3-Propanediol, 2-(hydroxymethyl)-2-methyl-, polymer with 2-(chloromethyl)oxirane

Hazard Pictogram(s)



Signal Word(s): Warning

Hazard Statement(s):
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H411: Toxic to aquatic life with long lasting effects.

Precautionary Statement(s):
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.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER/doctor if you feel unwell.

2.3 Other hazards None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Not applicable

3.2 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
2-(chloromethyl)oxirane; Formaldehyde; Phenol	≤ 100	28064-14-4	608-164-0	Not yet assigned in the supply chain	Skin irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 STOT SE. 3; H335 Aquatic Chronic 2; H411
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	10 – 20	25068-38-6	608-164-0	Not yet assigned in the supply chain	Skin irrit. 2; H315 (SCL ≥ 5%) Skin Sens. 1; H317 Eye Irrit. 2; H319 (SCL ≥ 5%) Aquatic Chronic 2; H411
1,3-Propanediol, 2-(hydroxymethyl)-2-methyl-, polymer with 2-(chloromethyl)oxirane	10 – 20	68460-21-9	Not applicable	Not yet assigned in the supply chain	Skin irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 Aquatic Chronic 3; H412

For full text of H phrases see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Self-protection of the first aider: Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin and eyes. Contaminated clothing should be laundered before reuse.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Wash skin with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye Contact: IF IN EYES: Flush eyes with water for at least 15 minutes while holding eyelids open. If eye irritation persists, get medical advice/attention.

Ingestion: Wash out mouth with water. Do not induce vomiting. If symptoms develop, obtain medical attention.

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

4.3 Indication of any immediate medical attention and special treatment needed Unlikely to be required but if necessary treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1	**Extinguishing media**	
	Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or waterspray.
	Unsuitable extinguishing Media	Do not use water jet.
5.2	**Special hazards arising from the substance or mixture**	May decompose in a fire giving off toxic fumes. Hazardous decomposition product(s): Aldehydes, Acids Phenolics, Carbon monoxide, Carbon dioxide. Dense smoke is emitted when burned without sufficient oxygen.
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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	**Personal precautions, protective equipment and emergency procedures**	Ensure adequate ventilation. Stop leak if safe to do so. Use personal protective equipment as required. See Section: 8. Avoid breathing vapours. Avoid contact with skin and eyes.
6.2	**Environmental precautions**	Avoid release to the environment. Do not release undiluted and unneutralised to the 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**	Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste.
6.4	**Reference to other sections**	See Section: 8, 13

SECTION 7: HANDLING AND STORAGE

7.1	**Precautions for safe handling**	Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Avoid breathing vapours. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.
7.2	**Conditions for safe storage, including any incompatibilities**	Keep only in original container. Keep container tightly closed and in a well-ventilated place.
	Storage temperature	Ambient temperatures.
	Storage life	Stable under normal conditions.
	Incompatible materials	Oxidizing agents, Acids, Bases
7.3	**Specific end use(s)**	See Section: 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	**Control parameters**	
8.1.1	**Occupational Exposure Limits**	Not applicable.
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 operatives are trained to minimise exposures. Ensure adequate ventilation. Atmospheric levels should be controlled in compliance with the occupational exposure limit.
8.2.2	**Individual protection measures, such as personal protective equipment (PPE)**	General hygiene measures for the handling of chemicals are applicable. Keep good industrial hygiene. Avoid contact with skin and eyes. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place. IF exposed: Flush with fresh water if contact with skin or eyes.

Eye/face protection 	Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).
Skin protection 	**Hand protection:** Wear impervious gloves (EN374). Protective index 6, corresponding > 480 minutes of permeation time according to EN 374 Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Neoprene or rubber gloves are recommended.
	Body protection: Wear suitable coveralls to prevent exposure to the skin.
Respiratory protection 	In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment. A suitable mask with filter type A (EN141 or EN405) may be appropriate.
Thermal hazards	Not applicable

8.2.3 Environmental Exposure Controls — Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear Liquid
Odour	Characteristic
Odour threshold	Not determined.
pH	Not determined.
Melting point/freezing point	Not determined.
Initial boiling point and boiling range	191℃
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Non-flammable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Specific Gravity: 1.19 g/cm³ (9.931 lbs/gal)
Solubility(ies)	Water: Immiscible
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not oxidising.

9.2 Other information

Organic solvents	0%
Volatile Organic Compound Content	5.04 GMS/L

SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**	Stable under normal conditions.
10.2	**Chemical stability**	Stable under normal conditions.
10.3	**Possibility of hazardous reactions**	None known. Stable under normal conditions.
10.4	**Conditions to avoid**	None known.

10.5	**Incompatible materials**	Oxidizing agents, Acids, Bases
10.6	**Hazardous decomposition product(s)**	May decompose in a fire giving off toxic fumes. Hazardous decomposition product(s): Aldehydes, Acids Phenolics, Carbon monoxide, Carbon dioxide. Dense smoke is emitted when burned without sufficient oxygen.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	**Information on toxicological effects**	All test data taken from existing ECHA registrations for the substances mentioned.
	Acute toxicity - Ingestion	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
	Acute toxicity - Inhalation	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 >20.0 mg/l.
	Acute toxicity - Skin Contact	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
	Skin corrosion/irritation	Skin Irrit. 2; Causes skin irritation.
	2-(chloromethyl)oxirane; Formaldehyde; Phenol	Skin irrit. 2; H315 No data.
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Skin irrit. 2; H315 SCL ≥ 5% Irritating to skin. OECD 404 (rabbit)
	1,3-Propanediol, 2-(hydroxymethyl)-2-methyl-, polymer with 2-(chloromethyl)oxirane	Skin irrit. 2; H315 No data.
	Serious eye damage/irritation	Eye Irrit. 2; Causes serious eye irritation.
	2-(chloromethyl)oxirane; Formaldehyde; Phenol	Eye irrit. 2; H319 No data.
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Eye irrit. 2; H319 SCL ≥ 5% EU Harmonised Classification
	1,3-Propanediol, 2-(hydroxymethyl)-2-methyl-, polymer with 2-(chloromethyl)oxirane	Eye irrit. 2; H319 No data.
	Respiratory or skin sensitization	Skin Sens. 1; May cause an allergic skin reaction.
	2-(chloromethyl)oxirane; Formaldehyde; Phenol	Skin Sens. 1; H317 No data.
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Skin Sens. 1; H317 Sensitisation: Positive OECD 429 (mouse)
	1,3-Propanediol, 2-(hydroxymethyl)-2-methyl-, polymer with 2-(chloromethyl)oxirane	Skin Sens. 1; H317 No data.
	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	STOT SE 3; May cause respiratory irritation.
	2-(chloromethyl)oxirane; Formaldehyde; Phenol	STOT SE. 3; H335 No data.
	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**	None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Aquatic Chronic 2; Toxic to aquatic life with long lasting effects. Estimated Mixture LC50 > 10 ≤ 100 mg/l (Fish)
	2-(chloromethyl)oxirane; Formaldehyde; Phenol	Aquatic Chronic 2; H411 No data.
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Aquatic Chronic 2; H411 NOEC 0.3 mg/L OECD 211 (Daphnia magna)
	1,3-Propanediol, 2-(hydroxymethyl)-2-methyl-, polymer with 2-(chloromethyl)oxirane	Aquatic Chronic 3; H412 No data.
12.2	**Persistence and degradability**	No data for the mixture as a whole.
	4,4'-Isopropylidenediphenol, oligomeric reaction products	Not biodegradable.

	with 1-chloro-2,3-epoxypropane	
12.3	**Bioaccumulative potential**	No data for the mixture as a whole.
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Bioconcentration factor (BCF) : 31
12.4	**Mobility in soil**	No data for the mixture as a whole.
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Log Koc 2.65 +/- 0.7
12.5	**Results of PBT and VPVB assessment**	Not classified as PBT or vPvB. None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance.
12.6	**Other adverse effects**	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	Dispose of this material and its container as hazardous waste. Send after pre-treatment to a appropriate hazardous waste incinerator facility according to legislation.
13.2	**Additional Information**	Dispose of contents in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

		ADR/RID	**IMDG**	**IATA/ICAO**
14.1	**UN number**	UN3082	UN3082	UN3082
14.2	**UN proper shipping name**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-(chloromethyl)oxirane; Formaldehyde; Phenol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-(chloromethyl)oxirane; Formaldehyde; Phenol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-(chloromethyl)oxirane; Formaldehyde; Phenol)
14.3	**Transport hazard class(es)**	9	9	9
14.4	**Packing group**	III	III	III
14.5	**Environmental hazards**	Environmentally hazardous substance	Marine Pollutant	Environmentally hazardous substance
14.6	**Special precautions for user**	See Section: 2		
14.7	**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable		

SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	
15.1.1	**EU regulations**	
	Authorisations and/or Restrictions On Use	Not restricted
15.1.2	**National regulations**	
	Germany	Water hazard class: 2
15.2	**Chemical Safety Assessment**	A chemical safety assessment is not required under REACH.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: New SDS Regulation 2015/830 format, all sections have been updated to include new information. Please review SDS with care.

References:

Existing Safety Data Sheet (SDS)**,** Harmonised Classification and Existing ECHA registration(s) for 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane (CAS No. 25068-38-6), the Classification and Labelling Inventory for 2-(chloromethyl)oxirane; Formaldehyde; Phenol (CAS No. 28064-14-4), 1,3-Propanediol, 2-(hydroxymethyl)-2-methyl-, polymer with 2-(chloromethyl)oxirane (CAS No. 68460-21-9).

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Skin irrit. 2; H315	Threshold Calculation
Skin Sens. 1; H317	Threshold Calculation
Eye Irrit. 2; H319	Threshold Calculation
STOT SE. 3; H335	Threshold Calculation
Aquatic Chronic 2; H411	Summation Calculation

LEGEND

LTEL: Long Term Exposure Limit
DNEL: Derived No Effect Level
EU: Europe
PBT: PBT: Persistent, Bioaccumulative and Toxic
STEL: Short Term Exposure Limit
PNEC: Predicted No Effect Concentration
vPvB: very Persistent and very Bioaccumulative

Hazard classification / Classification code:	Hazard Statement(s)
Skin Irrit. 2; Skin corrosion/irritation, Category 2	H315: Causes skin irritation.
Skin Sens. 1; Skin Sensitisation, Category 1	H317: May cause an allergic skin reaction.
Eye Irrit. 2; Eye Irritation, Category 2	H319: Causes serious eye irritation.
STOT SE 3; Specific target organ toxicity — single exposure, Category 3	H335: May cause respiratory irritation.
Aquatic Chronic 2; Hazardous to the aquatic environment, Chronic , Category 2	H411: Toxic to aquatic life with long lasting effects.
Aquatic Chronic 3; Hazardous to the aquatic environment, Chronic , Category 3	H412: Harmful to aquatic life with long lasting effects.

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