



# SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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## Core Hardener 2000 [NA]

Revision 2

Revision date 2017-05-03

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

#### 1.1. Product identifier

Product name Core Hardener 2000 [NA]

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

Product Use [SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites;  
Description Foundry material.

#### 1.3. Details of the supplier of the safety data sheet

Company Ransom & Randolph  
Address 3535 Briarfield Boulevard,  
Maumee, OH 43537 USA  
Web www.ransom-randolph.com  
Telephone +1 (419) 865-9497  
Fax +1 (419) 865-9997  
Email RR.SDS@dentsply.com  
Email address of the  
competent person RR.SDS@dentsply.com

#### 1.4. Emergency telephone number

Emergency telephone number USA +1 419 865 9497  
Company Ransom & Randolph Co.  
07:30 to 16:30 (Eastern Std. / GMT minus 5)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

2.1.1. Classification -  
1999/45/EC Xi; R43  
Symbols: Xi: Irritant.  
Main hazards May cause sensitisation by skin contact.  
2.1.2. Classification - EC  
1272/2008 Skin Sens. 1: H317;

#### 2.2. Label elements

Hazard pictograms This substance / mixture has been classified in accordance with the US Federal OSHA Hazard Communication Standard 29CFR 1910.1200. Substance concentration band-ranges are presented, and minor ingredient composition maybe withheld, to protect trade secrets.



Signal Word Warning

Hazard Statement Skin Sens. 1: H317 - May cause an allergic skin reaction.

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## 2.2. Label elements

<b>Precautionary Statement: Prevention</b>	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
<b>Precautionary Statement: Response</b>	P302+P352 - IF ON SKIN: Wash with plenty of water/ . P321 - Specific treatment (see on this label). P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
<b>Precautionary Statement: Disposal</b>	P501 - Dispose of contents/container to local and national regulations

## 2.3. Other hazards

<b>Other hazards</b>	Portions of the amorphous silica may be converted to crystalline silica (cristobalite) when subjected to higher temperatures (1700° F / 927° C), such as when used in a mold for ferrous and other high temperature alloy castings. The exposure to crystalline silica is highest at the mold knockout stage of the casting process.  Exposure to respirable crystalline silica may cause lung disease and cancer.
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## Further information

	Not applicable. PBT and vPvB assessment.
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## SECTION 3: Composition/information on ingredients

## 3.2. Mixtures

## 67/548/EEC / 1999/45/EC

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification	M-factor.
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	613-114-00-6	4719-04-4	225-208-0	01-0000000000-04	0 - 0.5%	Xn; R22 R43	
Ethanolamine (2-Aminoethanol)	603-030-00-8	141-43-5	205-483-3	01-0000000000-04	0 - 0.5%	Xn; R20/21/22 C; R34	

## EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification	M-factor.
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	613-114-00-6	4719-04-4	225-208-0	01-0000000000-04	0 - 0.5%	Acute Tox. 4: H302; Skin Sens. 1: H317;	
silica (amorphous)		7631-86-9	231-545-4		20 - 30%		

## Further information

	01-0000000000-04 exempt, under Biocide Products Regulation, BPR rule.
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## SECTION 4: First aid measures

## 4.1. Description of first aid measures

<b>Inhalation</b>	Move the exposed person to fresh air. Seek medical attention if irritation or symptoms persist.
<b>Eye contact</b>	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Immediate medical attention is required.
<b>Skin contact</b>	Remove all contaminated clothes and footwear immediately unless stuck to skin. Rinse immediately with plenty of water.
<b>Ingestion</b>	Drink 1 to 2 glasses of water. If swallowed, rinse mouth with water (only if the person is conscious).

## 4.2. Most important symptoms and effects, both acute and delayed

<b>Inhalation</b>	May cause irritation to respiratory system.
<b>Eye contact</b>	May cause irritation to eyes.
<b>Skin contact</b>	May cause sensitisation by skin contact.
<b>Ingestion</b>	May cause irritation to mucous membranes.

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

Inhalation	Seek medical attention if irritation or symptoms persist.
Eye contact	Seek medical attention if irritation or symptoms persist.
Skin contact	Seek medical attention if irritation or symptoms persist.
Ingestion	Seek medical attention if irritation or symptoms persist.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

	Use extinguishing media appropriate to the surrounding fire conditions.
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**5.2. Special hazards arising from the substance or mixture**

	Burning produces irritating, toxic and obnoxious fumes.
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**5.3. Advice for firefighters**

	Self-contained breathing apparatus. Wear suitable protective clothing.
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**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

	Wear suitable protective equipment.
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**6.2. Environmental precautions**

	Do not allow product to enter drains.
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**6.3. Methods and material for containment and cleaning up**

	Absorb with inert, absorbent material. Transfer to suitable, labelled container.
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**6.4. Reference to other sections**

	See section [2, 8 & 13] for further information.
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**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

	Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Wash hands after handling the product.
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**7.2. Conditions for safe storage, including any incompatibilities**

	Do NOT allow to freeze. Keep in a cool, dry, well ventilated area. Keep containers tightly closed.
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**7.3. Specific end use(s)**

	Foundry material.
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**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

	Ensure adequate ventilation of the working area.
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**8.1.1. Exposure Limit Values**

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## 8.1.1. Exposure Limit Values

Core Hardener 2000 [NA] (Core Hardener 2000 (TM) )	WEL 8-hr limit ppm:	WEL 8-hr limit mg/m3: 2.1
	WEL 15 min limit ppm: WEL 8-hr limit mg/m3 total inhalable dust: WEL 8-hr limit mg/m3 total respirable dust:	WEL 15 min limit mg/m3: WEL 15 min limit mg/m3 total inhalable dust: WEL 15 min limit mg/m3 total respirable dust:
Ethanalamine (2-Aminoethanol)	WEL 8-hr limit ppm: 1	WEL 8-hr limit mg/m3: 2.5
	WEL 15 min limit ppm: 3 WEL 8-hr limit mg/m3 total - inhalable dust: WEL 8-hr limit mg/m3 total - respirable dust:	WEL 15 min limit mg/m3: 7.6 WEL 15 min limit mg/m3 total - inhalable dust: WEL 15 min limit mg/m3 total - respirable dust:

## 8.2. Exposure controls

	
8.2.1. Appropriate engineering controls	Ensure adequate ventilation of the working area.
8.2.2. Individual protection measures	Apron (Plastic or rubber).
Eye / face protection	Approved safety goggles.
Skin protection - Handprotection	Wear suitable gloves.
Respiratory protection	Suitable respiratory equipment.

## SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Light yellow
Odour	Mild
Odour threshold	No data available
pH	9 - 11
Melting point	Not applicable.
Freezing Point	0 °C
Initial boiling point	100 °C
Flash point	Not applicable.
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable.
Vapour pressure	2333 Pa
Vapour density	0.016
Relative density	1.4 (H2O = 1 @ 20 °C)
Fat Solubility	Not applicable.
Autoignition temperature	Not applicable.
Viscosity	No data available
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Solubility	Miscible in water

## 9.2. Other information

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## 9.2. Other information

Conductivity	No data available
Surface tension	No data available
Gas group	Not applicable.
Benzene Content	Not applicable.
Lead content	Not applicable.
VOC (Volatile organic compounds)	Not applicable.

## SECTION 10: Stability and reactivity

## 10.1. Reactivity

	Not applicable.
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## 10.2. Chemical stability

	Stable under normal conditions.
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## 10.3. Possibility of hazardous reactions

	No Significant Hazard.
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## 10.4. Conditions to avoid

	Direct sunlight. Do NOT allow to freeze.
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## 10.5. Incompatible materials

	Sodium chloride.
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## 10.6. Hazardous decomposition products

	None.
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## SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

Acute toxicity	No data is available on this product.
Skin corrosion/irritation	May cause irritation to skin.
Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitisation	May cause sensitisation by skin contact.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Repeated or prolonged exposure	May cause irritation to skin.

## 11.1.4. Toxicological Information

Core Hardener 2000 [NA]	Oral Rat LD50: > 2000 mg/kg (est.)
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## SECTION 12: Ecological information

## 12.1. Toxicity

Core Hardener 2000 [NA]	Brachydanio Rerio LC50/96h: >5000 mg/l (est.)
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## 12.2. Persistence and degradability

	No data is available on this product.
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## Core Hardener 2000 [NA]

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Does not bioaccumulate.

**12.4. Mobility in soil**

Not determined.

**12.5. Results of PBT and vPvB assessment**

Not applicable.

**12.6. Other adverse effects**

Not applicable.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Dispose of in compliance with all local and national regulations.

**Disposal methods**

Contact a licensed waste disposal company.

**Disposal of packaging**

Do NOT reuse empty containers. Empty containers can be sent for disposal or recycling.

**Further information**

For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

**SECTION 14: Transport information****14.1. UN number**

The product is not classified as dangerous for carriage.

**14.2. UN proper shipping name**

The product is not classified as dangerous for carriage.

**14.3. Transport hazard class(es)**

The product is not classified as dangerous for carriage.

**14.4. Packing group**

The product is not classified as dangerous for carriage.

**14.5. Environmental hazards**

The product is not classified as dangerous for carriage.

**14.6. Special precautions for user**

The product is not classified as dangerous for carriage.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

The product is not classified as dangerous for carriage.

**Further information**

The product is not classified as dangerous for carriage.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Regulations**

U.S. FEDERAL REGULATIONS:  
 CERCLA 103 Reportable Quantity: Core Hardener 2000 is not subject to CERCLA toxic chemical reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

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**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

	<p>Hazard Category For Section 311/312: none</p> <p>Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None</p> <p>Section 302 Extremely Hazardous Substances (TPQ): None</p> <p>EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.</p> <p>U.S. STATE REGULATIONS California Proposition 65: This product contains the following substances known to the State of California to cause cancer: none</p> <p>INTERNATIONAL REGULATIONS: Canadian WHMIS Classification: Not a controlled product.</p> <p>Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL).</p>
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**15.2. Chemical safety assessment**

	No data is available on this product.
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**SECTION 16: Other information****Other information**

<b>Revision</b>	This document differs from the previous version in the following areas: 2 - 2.2. Label elements. 3 - Further information.
<b>Text of risk phrases in Section 3</b>	R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed. R22 - Harmful if swallowed. R34 - Causes burns. R43 - May cause sensitisation by skin contact.
<b>Text of Hazard Statements in Section 3</b>	Acute Tox. 4: H302 - Harmful if swallowed. Skin Sens. 1: H317 - May cause an allergic skin reaction.

**Further information**

	<p>The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.</p> <p>Training Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.</p>
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