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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity Copper & Brass Polish
Alternate Names Copper & Brass Polish

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

Intended use For polishing copper, brass, bronze or stainless steel.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Howard Products, Inc.

560 Linne Road

Paso Robles, CA 93446

Emergency

CHEMTREC (USA) (800) 424-9300

Customer Service: Howard Products, Inc. EMERGENCY PHONE:1-805-227-1000

FAX PHONE: 1-805-227-1007

2. Hazard identification of the product

2.1. Classification of the substance or mixture

Skin Irrit. 3;H316 Causes mild skin irritation. (Not adopted by US OSHA)

Eye Dam. 1;H318 Causes serious eye damage.

STOT RE 2;H373 May cause damage to organs through prolonged or repeated exposure. Specific Target

Organs: (Not Available)

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

H316 Causes mild skin irritation.

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or repeated exposure.

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[Prevention]:

P260 Do not breathe mist / vapors / spray.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P314 Get Medical advice / attention if you feel unwell.

P332+313 If skin irritation occurs: Get medical advice / attention.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Bentonite CAS Number: 0001302-78-9	10 - 25		[1]
Crystalline Silica - Quartz (Liquified) CAS Number: 0014808-60-7	10 - 25	Acute Tox. 4; STOT RE 2;H373	[1][2]
Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]- CAS Number: 0000087-69-4	1.0 - 10		[1]
Oleic acid CAS Number: 0000112-80-1	1.0 - 10		[1]
Pine oil CAS Number: 0008002-09-3	1.0 - 10	Skin Irrit. 2;H315 Eye Irrit. 2;H319	[1]
Igepal CA630 CAS Number: 0068987-90-6	1.0 - 10	Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335 Acute Tox. 4;H302 Eye Dam. 1;H318 Aquatic Chronic 2;H411	[1]

^[1] Substance classified with a health or environmental hazard.

^[2] Substance with a workplace exposure limit.

^[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

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4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give

artificial respiration. If unconscious place in the recovery position and obtain immediate

medical attention. Give nothing by mouth.

Eyes Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes

with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get

medical attention if any discomfort continues.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a

recognized skin cleanser.

Ingestion If victim is conscious and alert, give 2-4 cupfuls of milk or water. DO NOT INDUCE

VOMITING.

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

Overview Physician: Danger of aspiration must be weighed against toxicity.

Inhalation hazard, only if dust if created.

See section 2 for further details.

Eyes Causes serious eye damage.

Skin Causes mild skin irritation. (Not adopted by US OSHA)

5. Fire-fighting measures

5.1. Extinguishing media

Use media appropriate for surrounding area.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Do not breathe mist / vapors / spray.

5.3. Advice for fire-fighters

Not applicable

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Wipe up with cloth or sponge.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry place.

Avoid generating dust. DO NOT LET DRY TO A POWDER.

Incompatible materials: No data available. See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000087-69-4 Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-	OSHA	No Established Limit	
	ACGIH	No Established Limit	
	NIOSH	No Established Limit	
		Supplier	No Established Limit
0000112-80-1 Oleic acid	OSHA	No Established Limit	
	ACGIH	No Established Limit	
	NIOSH	No Established Limit	
	Supplier	No Established Limit	
0001302-78-9 Bentonite	OSHA	No Established Limit	
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

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0008002-09-3 Pine oil		OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0014808-60-7 Crystalline Silica – Quartz (Liquified)	OSHA	No Established Limit	
	ACGIH	TWA: 0.025 mg/m3A1, 1	
	NIOSH	0.05 mg/m3 TWA (respirable)	
	Supplier	No Established Limit	
0068987-90-6 Igepal CA630	OSHA	No Established Limit	
	ACGIH	No Established Limit	
		NIOSH	No Established Limit
	Supplier	No Established Limit	

Carcinogen Data

CAS No.	Ingredient	Source	Value		
0000087-69-4 Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-	OSHA	Select Carcinogen: No			
	NTP	Known: No; Suspected: No			
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
0000112-80-1	Oleic acid	OSHA	Select Carcinogen: No		
		NTP	Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
0001302-78-9 Bentonite	OSHA	Select Carcinogen: No			
	NTP	Known: No; Suspected: No			
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
0008002-09-3	Pine oil	OSHA	Select Carcinogen: No		
		NTP	Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
0014808-60-7	Crystalline Silica – Quartz	OSHA	Select Carcinogen: No		
	(Liquified)	NTP	Known: No; Suspected: No		
	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;			
0068987-90-6	Igepal CA630	OSHA	Select Carcinogen: No		
		NTP	Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		

8.2. Exposure controls

Respiratory Dust mask, if dust is generated. **Eyes** Safety glasses with side shields

Skin Not Applicable

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the

use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits

suitable respiratory protection must be worn.

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using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance Grey Creamy Liquid
Odor Mild Pine Odor
Odor threshold Not Measured
pH Not Applicable
Melting point / freezing point Not available
Initial boiling point and boiling range >200 F
Flash Point N/A

Evaporation rate (Ether = 1) Not available
Flammability (solid, gas) Not Applicable

Upper/lower flammability or explosive limits Lower Explosive Limit: N/A

Upper Explosive Limit: N/A

Vapor pressure (Pa)Not ApplicableVapor Density< 1 (Air=1)</th>Specific Gravity> 1

Solubility in Water Partial

Partition coefficient n-octanol/water (Log Kow) Not Measured

Auto-ignition temperature N/A

Decomposition temperatureNot availableViscosity (cSt)Not available

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid high temperatures. Do not mix with other chemicals.

10.5. Incompatible materials

No data available.

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10.6. Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Bentonite - (1302-78-9)	No data available	No data available	No data available	No data available	No data available
Crystalline Silica - Quartz - (14808-60-7) (Liquified)	No data available	No data available	No data available	No data available	No data available
Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)] (87-69-4)	No data available	No data available	No data available	No data available	No data available
Oleic acid - (112-80-1)	No data available	No data available	No data available	No data available	No data available
Pine oil - (8002-09-3)	No data available	No data available	No data available	No data available	No data available
Igepal CA630 - (68987-90-6)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description	
Acute toxicity (oral)		Not Applicable	
Acute toxicity (dermal)		Not Applicable	
Acute toxicity (inhalation)		Not Applicable	
Skin corrosion/irritation	3	Causes mild skin irritation. (Not adopted by US OSHA)	
Serious eye damage/irritation	1	Causes serious eye damage.	
Respiratory sensitization		Not Applicable	
Skin sensitization		Not Applicable	
Germ cell mutagenicity		Not Applicable	
Carcinogenicity		Not Applicable	
Reproductive toxicity		Not Applicable	
STOT-single exposure		Not Applicable	
STOT-repeated exposure	2	May cause damage to organs through prolonged or repeated exposure.	
Aspiration hazard		Not Applicable	

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12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Bentonite - (1302-78-9)	Not Available	Not Available	Not Available
Crystalline Silica - Quartz - (14808-60-7) (Liquified)	Not Available	Not Available	Not Available
Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)] (87-69-4)	Not Available	Not Available	Not Available
Oleic acid - (112-80-1)	Not Available	Not Available	Not Available
Pine oil - (8002-09-3)	18.35, Oncorhynchus mykiss	24.50, Daphnia magna	Not Available
Igepal CA630 - (68987-90-6)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

Ecotoxicity:

The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

13. Disposal considerations

13.1. Waste treatment methods

Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act.

Using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply.

Wash rags that are used with plenty of soap.

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14. Transport information

DOT (Domestic Surface

ICAO/IATA

Transportation)

IMO / IMDG (Ocean **Transportation**)

14.1. UN number

Not Applicable Not Regulated Not Regulated Not Regulated Not Regulated Not Regulated

14.2. UN proper shipping

DOT Hazard Class: Not

IMDG: Not Applicable Sub Class: Not Applicable Air Class: Not Applicable

14.3. Transport hazard

class(es)

Applicable

14.4. Packing group

DOT Label: ---Not Applicable

Not Applicable

Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Applicable

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected

regulations are represented.

Toxic Substance

All components of this material are either listed or exempt from listing on the TSCA Inventory.

Control Act (TSCA) WHMIS Classification

D2B E

US EPA Tier II Hazards

Sudden Release of Pressure: No

Reactive: No

Fire: No

Immediate (Acute): Yes Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs:

(No Product Ingredients Listed)

EPCRA 302 Extremely Hazardous:

(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals:

(No Product Ingredients Listed)

Proposition 65 - Carcinogens (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0.0%):

(No Product Ingredients Listed)

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Proposition 65 - Female Repro Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0.0%):

(No Product Ingredients Listed)

N.J. RTK Substances (>1%):

Pine oil

Penn RTK Substances (>1%):

Oleic acid

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

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