Permatex.

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008

Revision Date 14-Oct-2024 Version 1

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

1.1. Product identifier

Product Code 27038

Product Name Optimum Red 3.35 oz Tube

Other means of identification

Mixture

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

Recommended Use Sealant

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer Only Representative (OR)

ITW Permatex, Inc. ITW Permatex, Inc.

6875 Parkland Blvd. Bay 150

Solon, Ohio 44139 USA Shannon Industrial Estate

Telephone: 1-87-Permatex Co. Clare (866) 732-9502 Ireland V14 DF82

353(61)771500 353(61)471285

customerservice.shannon@itwpp.com

For further information, please contact

Contact Point ITW Permatex

6875 Parkland Blvd. Solon, Ohio 44139 USA Telephone: 1-87-Permatex

(866) 732-9502

E-mail address: mail@permatex.com

Non-Emergency Telephone Number 866-732-9502

1.4. Emergency telephone number

24-hour emergency phone number
EU Member States information as follows:

24-hour emergency phone number - §45 - (EC)1272/2008					
Europe	112				
Austria	01 406 43 43				
Belgium	070 245 245				
Bulgaria	+359 2 9154 233				
Croatia	+3851 2348 342				

Cyprus	1401
Czech Republic	+420 224 919 293/ +420 224 915 402
Denmark	+ 45 8212 1212
Estonia	16662/ (+372) 7943 794
Finland	0800 147 111/ 09 471 977
France	+33 (0)1 45 42 59 59
Germany	+49 228 192 40
Greece	(003) 2107793777
Hungary	+36 80 201 199
Iceland	543 2222
Ireland	01 809 2166
Italy	0382-24444
Latvia	+371 67042473
Liechtenstein	01 406 43 43
Lithuania	+370 (85) 2362052
Luxembourg	(+352) 8002 5500
Malta	112
Netherlands	+31 (0)88 755 8000
Norway	22 59 13 00
Poland	112
Portugal	+351 800 250 250
Romania	+40213183606
Slovakia	+421 2 5477 4166
Slovenia	112
Spain	+34 91 562 04 20
Sweden	112
Switzerland	145
United Kingdom	111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]. EUH210 - Safety data sheet available on request.

29.25 % of the mixture consists of ingredient(s) of unknown acute toxicity.

6.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

24.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

29.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

29.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

29.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

Other hazards No information available.

PBT & vPvB The components in this formulation do not meet the criteria for classification as PBT or

vPvB.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	concentration		M-Factor (long-ter m)	Notes
IRON OXIDE 1309-37-1	10-30%	No data available	215-168-2	No data available	-	-	-	-
POLYDIMETHYLSIL OXANE 63148-62-9	10-30%	No data available	-	No data available	-	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
		mg/kg	hour - dust/mist - mg/L	hour - vapor - mg/L	hour - gas - ppm
IRON OXIDE	10000	No data available	No data available	No data available	No data available
1309-37-1					
POLYDIMETHYLSILOXA	24000	No data available	No data available	No data available	No data available
NE					
63148-62-9					

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

Section 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a

physician.

Ingestion Rinse mouth.

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

Symptoms No information available.

Effects of Exposure No information available.

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

Section 5: Firefighting measures

5.1. Extinguishing media

surrounding environment.

Small Fire In case of fire, use water spray, foam, dry chemical, or CO2. **Large Fire** In case of fire, use water spray, foam, dry chemical, or CO2.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

Hazardous combustion products No information available

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning upTake up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510) Storage class 10.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
IRON OXIDE	-	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5.0 mg/m ³	TWA: 4 mg/m ³
1309-37-1		STEL 10 mg/m ³			TWA: 5 mg/m ³
					TWA: 10 mg/m ³
					STEL: 10 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
IRON OXIDE	-	-	TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³	TWA: 5 mg/m ³
1309-37-1			STEL: 7 mg/m ³		
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
IRON OXIDE	TWA: 5 mg/m ³	-	-	TWA: 10 mg/m ³	TWA: 4 mg/m ³
1309-37-1	TWA: 10 mg/m ³			STEL: 10 mg/m ³	
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
IRON OXIDE	TWA: 5 mg/m ³	-	TWA: 5 mg/m ³	-	TWA: 3.5 mg/m ³
1309-37-1	TWA: 10 mg/m ³				
	TWA: 4 mg/m ³				
	STEL: 10 mg/m ³				
	STEL: 12 mg/m ³				
	STEL: 30 mg/m ³				
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
IRON OXIDE	-	-	-	TWA: 3 mg/m ³	TWA: 2.5 mg/m ³
1309-37-1				STEL: 6 mg/m ³	TWA: 5 mg/m ³
					STEL: 10 mg/m ³
					STEL: 5 mg/m ³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
IRON OXIDE	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 1.5 mg/m ³	-	TWA: 5 mg/m ³
1309-37-1		STEL: 10 mg/m ³	TWA: 4 mg/m ³		

POLYDIMETHYLSILOX NE	A -		TWA: 200 mg/m ³ STEL: 300 mg/m ³	-	-		-
63148-62-9			Sk*	0	-1	1.1	ita di Minandana
Chemical nar	ne		Sweden	Switzerlan	ia	Ur	nited Kingdom
IRON OXID	E	N	GV: 3.5 mg/m ³	TWA: 3 mg/	′m³	T'	WA: 5 mg/m ³
1309-37-1						TV	VA: 10 mg/m ³
							WA: 4 mg/m³
						ST	EL: 10 mg/m ³
						ST	EL: 30 mg/m ³
						ST	EL: 12 mg/m ³

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
VINYL OXIMINOSILANE 2224-33-1	-	0.15 mg/kg bw/day [4] [6]	1.06 mg/m³ [4] [6]
OXIMINOSILANE 34206-40-1	-	0.134 mg/kg bw/day [4] [6]	0.942 mg/m³ [4] [6]

Notes

[4] Systemic health effects.

[6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
VINYL OXIMINOSILANE 2224-33-1	0.075 mg/kg bw/day [4] [6]	-	0.26 mg/m ³ [4] [6]
OXIMINOSILANE 34206-40-1	0.067 mg/kg bw/day [4] [6]	-	0.232 mg/m ³ [4] [6]

Notes

[4] Systemic health effects.

[6] Long term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
VINYL OXIMINOSILANE 2224-33-1	0.01919 mg/L	-	0.001919 mg/L	-	-
OXIMINOSILANE 34206-40-1	0.0171 mg/L	-	0.00171 mg/L	-	-
SUBSTITUTED UREA 23843-64-3	0.1 mg/L	1 mg/L	0.01 mg/L	0.1 mg/L	-
GAMMA-AMINOPROPYL TRIMETHOXYSILANE 13822-56-5	0.5 mg/L	2.05 mg/L	0.05 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
VINYL OXIMINOSILANE	1136.562 mg/kg	113.656 mg/kg	4.06 mg/L	133.8 mg/kg soil dw	3.333 mg/kg food
2224-33-1	sediment dw	sediment dw			
OXIMINOSILANE	9835.346 mg/kg	983.535 mg/kg	4.825 mg/L	1157.93 mg/kg soil	2.97 mg/kg food
34206-40-1	sediment dw	sediment dw		dw	
SUBSTITUTED UREA	0.39 mg/kg	0.039 mg/kg	28.4 mg/L	0.0194 mg/kg soil	-
23843-64-3	sediment dw	sediment dw		dw	
GAMMA-AMINOPROPYL	1.8 mg/kg sediment	0.18 mg/kg	0.81 mg/L	0.069 mg/kg soil dw	11.1 mg/kg food
TRIMETHOXYSILANE	dw	sediment dw			
13822-56-5					

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Appropriate eye/face protection should be selected and used according to the chemical

nature, hazards and use of this product and safety requirements of the local jurisdiction.

Hand protection Appropriate hand protection should be selected and used according to the chemical nature,

hazards and use of this product and safety requirements of the local jurisdiction.

Skin and body protection Appropriate skin and body protection should be selected and used according to the

chemical nature, hazards and use of this product and safety requirements of the local

jurisdiction.

Respiratory protection Appropriate respiratory protection should be selected and used according to the chemical

nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be

required.

Thermal hazards No information available.

Environmental exposure controls No information available.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Paste / Gel Liquid

AppearancePasteColorRedOdorMild.

Odor threshold No information available

Property Values Remarks • Method

Melting point / freezing pointNo data availableEstimatedBoiling point / boiling rangeNo data availablePolymerization

Flammability (solid, gas)

No data available

Flammable in the presence of the following materials

or conditions: open flames, sparks and static

discharge. None known

Flammability Limit in Air

Upper flammability limit: No data available

Autoignition temperature

Lower flammability limit: No data available

Flash point No data available Gives a flame projection at full valve opening or

flashback at any degree of valve opening

No data available Estimated

Decomposition temperatureRemarks: Self-Accelerating decomposition

temperature (SADT): 50 °C SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction.

pH No data available 10% in deionized water

pH (as aqueous solution)No data available
None known

Kinematic viscosityNo Data AvailableKinematic viscosity at 100 degrees CDynamic viscosityNo data availableRemarks: Self-Accelerating decomposition

temperature (SADT): 50 °C SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a

Polymerization

None known

None known

mmHg

Air = 1

Estimated

self-accelerating decomposition reaction.

Water solubility No data available None known

Solubility(ies) No Data Available
Partition coefficient No Data Available
Vapor pressure No Data Available
Relative density No data available
Bulk density 자료 없음

Density
No data available
Vapor density
No data available

Particle characteristics

Particle Size No information available Particle Size Distribution No information available

9.2. Other information

9.2.1. Information with regard to physical hazard classes Not applicable

9.2.2. Other safety characteristics No information available

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization No information available.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materialsNone known based on information supplied.

10.6. Hazardous decomposition products

Hazardous Decomposition Products None known based on information supplied.

Section 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity Based on available data, the classification criteria are not met.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral) 32,786.90 mg/kg

ATEmix (dermal) 31,932.50 mg/kg

ATEmix (inhalation-gas) 99,999.00 ppm

ATEmix (inhalation-vapor) 99,999.00 mg/l

ATEmix (inhalation-dust/mist) 99,999.00 mg/l

6.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

24.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

29.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

29.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

29.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
IRON OXIDE	> 10000 mg/kg (Rat)	-	-
POLYDIMETHYLSILOXANE	> 24 g/kg (Rat)	-	-

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitization Based on available data, the classification criteria are not met.

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.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties Based on available data, the classification criteria are not met.

11.2.2. Other information

Neurological effects

No information available.

Other adverse effects

No information available.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity

Unknown aquatic toxicityContains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
IRON OXIDE	-	LC50: =100000mg/L (96h, Danio rerio)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment Based on available data, the classification criteria are not met.

Chemical name	PBT and vPvB assessment
IRON OXIDE	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties Based on available data, the classification criteria are not met.

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

Section 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Do not reuse empty containers. Contaminated packaging

Section 14: Transport information

ΙΔΤΔ

<u> </u>		
14.1	UN number or ID number	Not regulated
14.2	UN proper shipping name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing group	Not regulated
14.5	Environmental hazards	Not applicable

14.6 Special precautions for user

Special Provisions None

<u>IMDG</u>

14.1	UN number or ID number	Not regulated
14.2	UN proper shipping name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing group	Not regulated
14.5	Environmental hazards	Not applicable

14.6 Special precautions for user

Special Provisions

14.7 Maritime transport in bulk according to IMO instruments

No information available

RID

14.1	UN number or ID number	Not regulated
14.2	UN proper shipping name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing group	Not regulated
14.5	Environmental hazards	Not applicable
1/6	Special procautions for user	

14.6 Special precautions for user

Special Provisions None

<u>ADR</u>

14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardsNot applicable

14.6 Special precautions for user

Special Provisions None

ADN

14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot regulated14.5Environmental hazardNot applicable

14.6 Special precautions for user

Special Provisions None

Section 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
IRON OXIDE - 1309-37-1	RG 44,RG 44bis,RG 94

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018 Not applicable

Storage of Hazardous Material SC Non-hazardous material

WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20 Not applicable

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
IRON OXIDE - 1309-37-1	75	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA Complies DSL/NDSL Complies

EINECS/ELINCS Does not comply
ENCS Does not comply
IECSC Complies

KECIDoes not complyPICCSCompliesAICSCompliesNZIOCComplies

TCSI Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing Chemicals Inventory

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances
 NZIoC - New Zealand Inventory of Chemicals
 TCSI - Taiwan Chemical Substance Inventory

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity

ATE: Acute Toxicity Estimate LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value * Skin designation

+ Sensitizers

Classification procedure
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Method Used

Calculation method
Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision Date 14-Oct-2024

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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 process, unless specified in the text.

End of Safety Data Sheet