SAFETY DATA SHEET

Revision date 10-Mar-2026 **Revision Number** 3

1. Identification

Product identifier

Product Name V-382 Red

Other means of identification

Product Code(s) FG00086

UN number or ID number UN3082

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Use product for its intended purpose as a glaze product intended for arts and crafts purposes. This product is intended for small batch use.

Restrictions on use

Details of the supplier of the safety data sheet

Manufacturer Address
American Art Clay Co Inc
6060 Guion Road
Indianapolis, IN 46254-1222 USA
Toll Free: 1-800-999-5456
CustomerCare@Amaco.com

Emergency telephone number

Emergency Telephone U.S. Poison Control 1-800-222-1222

2. Hazard(s) identification

Classification of the substance or mixture

Acute toxicity - Oral	Category 4
Skin sensitization	Category 1

Hazards not otherwise classified (HNOC)
Not applicable

Label elements



Warning

Hazard statements
Harmful if swallowed.
May cause an allergic skin reaction.

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust, fume, gas, mist, vapors and spray
Contaminated work clothing must not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response
Specific treatment (see supplemental first aid instructions on this label)
IF ON SKIN: Wash with plenty of water and soap
If skin irritation or rash occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable

Unknown acute toxicity
18.9055 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

Hazards classified under paragraph (d)(1)(ii) of 1910.1200
No information available.

Other information
May be harmful in contact with skin. Toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Trade secret
Silicic acid, zirconium salt, cadmium pigment-encapsulated	102184-95-2	10 - 20	*
Quartz	14808-60-7	5 - <10	*
Zircon	14940-68-2	5 - <10	*
Kaolin	1332-58-7	5 - <10	*
Frits, chemicals	65997-18-4	5 - <10	*
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

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 with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

Specific hazards arising from the chemical Product is or contains a sensitizer. May cause sensitization by skin contact.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Methods and material for containment and cleaning up

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

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

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

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

8. Exposure controls/personal protection

Control Parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Silicic acid, zirconium salt, cadmium pigment-encapsulated 102184-95-2	STEL: 10 mg/m³ Zr TWA: 0.01 mg/m³ Cd TWA: 0.002 mg/m³ Cd respirable particulate matter TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr (vacated) TWA: 5 mg/m³ Zr (vacated) STEL: 10 mg/m³ Zr	IDLH: 9 mg/m³ Cd dust and fume IDLH: 25 mg/m³ Zr TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr
Quartz 14808-60-7	TWA: 0.025 mg/m³ respirable particulate matter	TWA: 50 µg/m³ (vacated) TWA: 0.1 mg/m³ respirable dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m³ TWA respirable fraction	TWA: 0.05 mg/m³; respirable dust IDLH: 50 mg/m³ respirable dust
Zircon 14940-68-2	STEL: 10 mg/m³ Zr TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr (vacated) TWA: 5 mg/m³ Zr (vacated) STEL: 10 mg/m³ Zr	IDLH: 25 mg/m³ Zr TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr
Kaolin 1332-58-7	TWA: 2 mg/m³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction	TWA: 10 mg/m³ total dust TWA: 5 mg/m³ respirable dust

Note See section 16 for terms and abbreviations.

Other information on limit values Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Biological occupational exposure limits

Chemical name	ACGIH
Silicic acid, zirconium salt, cadmium pigment-encapsulated 102184-95-2	5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing.

Respiratory protection Use appropriate respiratory protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	No information available
Odor	No information available
Odor threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point	No data available	None known
Boiling point (or initial boiling point or boiling range)	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	410 °C / 770 °F	None known
Decomposition temperature	No data available	None known
SADT (°C)	No data available	None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Solubility	No data available	None known
Water solubility	No data available	None known
Partition coefficient n-octanol/water (log value)	No data available	None known
Vapor pressure (includes evaporation rate)	No data available	None known
Evaporation rate	No data available	None known
Density and/or relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapor density	No data available	None known

Particle characteristics No information available

Particle Size	No data available
Particle Size Distribution	No data available

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

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 May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May be harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives.

Acute toxicity Harmful if swallowed.

Numerical measures of toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral)	1,994.70 mg/kg
ATEmix (dermal)	3,898.20 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	22.23 mg/l

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

Unknown acute toxicity

18.9055 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Silicic acid, zirconium salt, cadmium pigment-encapsulated 102184-95-2	> 2000 mg/kg (Rat)	-	> 5.07 mg/L (Rat) 4 h
Kaolin 1332-58-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Frits, chemicals 65997-18-4	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol 4719-04-4	= 763 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 0.4 mg/L (Rat) 4 h = 0.338 mg/L (Rat) 4 h

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

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No information available.

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

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Silicic acid, zirconium salt, cadmium pigment-encapsulated 102184-95-2	A2	Group 1	Known	X
Quartz 14808-60-7	A2 - Suspected Human Carcinogen	Group 1 - Carcinogenic to humans	Known Human Carcinogen	Present

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol 4719-04-4	-	LC50: =16.07mg/L (96h, Danio rerio)	-	-

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol 4719-04-4	<-2.3 -2 -1.3

Other adverse effects No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

DOT

UN number or ID number UN3082
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.

Transport hazard class(es)	9
Packing group	III
Special Provisions	8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant	PP
Marine pollutant	Zircon, cadmium red, Frits, chemicals
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III, Marine pollutant
Emergency Response Guide Number	171

TDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	16, 99
Marine pollutant name	Zircon, cadmium red, Frits, chemicals.
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III

MEX

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Technical Name	Zircon, cadmium red, Frits, chemicals
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III
Special Provisions	274, 331, 335

ICAO (air)

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III
Special Provisions	A97, A158, A197, A215

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Technical Name	Zircon, cadmium red, Frits, chemicals
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III
Special Provisions	A97, A158, A197
ERG Code	9L

IMDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
EmS-No.	F-A, S-F
Special Provisions	274, 335, 969
Marine pollutant	P
Marine Pollutant	Zircon, cadmium red, Frits, chemicals
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III, Marine pollutant

RID

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Classification code	M6
Special Provisions	274, 335, 375, 601
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III

ADR

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Classification code	M6
Tunnel restriction code	(-)
Special Provisions	274, 335, 601, 375
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III, (-)

ADN

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Classification code	M6
Special Provisions	274, 335, 375, 601
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, Frits, chemicals), 9, III
Equipment Requirements	PP

15. Regulatory information

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Water	7732-18-5	Present	Active
Silicic acid, zirconium salt, cadmium pigment-encapsulated	102184-95-2	-	Unknown *
Quartz	14808-60-7	Present	Active
Zircon	14940-68-2	Present	Active
Kaolin	1332-58-7	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Nepheline syenite	37244-96-5	-	Unknown *
Smectite-group minerals	12199-37-0	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
C.I. Pigment Blue 73	68187-40-6	Present	Active
1,3,5-Triazine-1,3,5(2H,4H,6H)-trietha	4719-04-4	Present	Active

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
nol			
Ethanolamine	141-43-5	Present	Active

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL Contact supplier for inventory compliance status.
EINECS/ELINCS Contact supplier for inventory compliance status.
ENCS Contact supplier for inventory compliance status.
IECSC Contact supplier for inventory compliance status.
KECL Contact supplier for inventory compliance status.
PICCS Contact supplier for inventory compliance status.
AIIC Contact supplier for inventory compliance status.
NZIoC Contact supplier for inventory compliance status.
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 and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Silicic acid, zirconium salt, cadmium pigment-encapsulated - 102184-95-2	0.1
C.I. Pigment Blue 73 - 68187-40-6	0.1

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Silicic acid, zirconium salt, cadmium pigment-encapsulated 102184-95-2	-	X	-	-

CAA (Clean Air Act)
This product does not contain any substances regulated as pollutants pursuant to Clean Air Act (CAA).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
Silicic acid, zirconium salt, cadmium pigment-encapsulated	Carcinogen
Quartz	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Silicic acid, zirconium salt, cadmium pigment-encapsulated 102184-95-2	X	-	X
Quartz 14808-60-7	X	X	X
Kaolin 1332-58-7	X	X	X
C.I. Pigment Blue 73 68187-40-6	X	-	X
Ethanolamine 141-43-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	**Health hazards** 2	**Flammability** 1	**Instability** 0	**Special hazards** -
HMIS	**Health hazards** 2	**Flammability** 0	**Physical hazards** 0	**Personal protection** -

Key or legend to abbreviations and acronyms used in the safety data sheet
No information available

Legend

ACGIH	The American Conference of Governmental Industrial Hygienists (ACGIH) Documentation of Threshold Limit Values and Biological Indices (latest edition)
ADN	Obsolete European Agreement on International Transport of Dangerous Goods by Road (ADN)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
P240 - Ground and bond container and receiving equipment	Acute Toxicity Estimate
P263 - Avoid contact during pregnancy and while nursing	ASTM (formerly known as the American Society for Testing and Materials)
bar	Biological Reference Values for Chemical Compounds in the Work Area
Paste	Biological tolerance values for occupational exposure

MEX	Biological exposure limits
European Export/Import Restrictions per (EC) 649/2012 - Annex Number	Body weight
Ceiling	Maximum limit value
CMR Effects	CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
DOT	DOT (Department of Transportation)
DSL	Canadian Domestic Substances List (DSL)
EmS	Emergency Schedule
ENCS	ENCS (Existing and New Chemical Substances)
EPA	EPA (Environmental Protection Agency)
GHS	The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)
HMIS	Hazardous Materials Identification System
IARC	IARC - International Agency for Research on Cancer
IATA	(IATA) International Air Transport Association
IBCs	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	OBSOLETE The transportation of primary lithium cells and batteries is regulated by the International Civil Aviation Organization, International Air Transport Association, International Maritime Dangerous Goods Code and the US Department of Transportation. The batteries must meet the following criteria for shipment: 1. Air shipments must meet the requirements listed in Special Provision A45 of the International Air Transport Association Dangerous Goods Regulations. 2. Meet the requirements for the US Department of Transportation listed in 49 CFR 173.185. 3. The transport of primary lithium batteries is prohibited aboard passenger aircraft. Refer to the Federal Register December 15, 2004 (Hazardous Materials; Prohibited on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft; Final Rule)
IECSC	China (IECSC)
IMDG	Sea transport (IMDG)
Directive 84/449/EEC, Annex, C.10	International Maritime Organization
Directive 84/449/EEC, Annex, A.7	ISO (The International Organization for Standardization)
KECL	South Korea (KECL)
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order article 18 (related to Industrial Safety and Health Law article 57)	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association
NIOSH	**NIOSH** - National Institute for Occupational Safety and Health
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	NOAEL (No observed adverse effect level)
Other names	No Observable Effect Loading Rate
NTP	**NTP** - National Toxicology Program
NZIoC	NZIoC - New Zealand Inventory of Chemicals
Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order article 18 (related to Industrial Safety and Health Law article 57)	OECD (Organization for Economic Cooperation and Development)
OEL	Occupational exposure limits
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	PICCS - Philippines Inventory of Chemicals and Chemical Substances
Spillage instructions	Persistent, Mobile and Toxic
Terrestrial ecotoxicity	Personal protective equipment
Canada WHMIS 2015 which includes	Quantitative Structure Activity Relationships [QSAR]

the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)	
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
Diagnostic cycle: 6 months	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
SL	Surface Limit
STEL	**STEL** - Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
TCSI	Taiwan Chemical Substance Inventory
TDG	TDG (Transport of Dangerous Goods) Canada
TSCA	TSCA (Toxic Substances Control Act)
TWA	Time-Weighted Average
The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitizer
RS	Respiratory Sensitizer
S	Sensitizer
poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption

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)
EPA (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)
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	10-Mar-2026
Revision Note	No information available.

Disclaimer

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End of Safety Data Sheet