

SAFETY DATA SHEET

Issue Date 10-Jul-2019	Revision Date 26-Jan-2024	Version 4.5	Page	1 / 15
	1. IDENTIFICATI	ON		
<u>Product identifier</u> Product Name	RoVer® Rust Remover			
Other means of identification Product Code(s)	30012			
Safety data sheet number	M00387			
Recommended use of the che	emical and restrictions on use			
Recommended Use	Rust Remover.			
Uses advised against	Consumer use.			
Restrictions on use	For Laboratory Use Only.			
Details of the supplier of the safety data sheet				
Manufacturer Address				

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3
Chronic aquatic toxicity	Category 3

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word Warning

Product NameRoVer®Rust RemoverRevision Date26-Jan-2024Page2 / 15



Hazard statements

H302 - Harmful if swallowed

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

- P332 + P313 If skin irritation occurs: Get medical attention
- P362 Take off contaminated clothing and wash before reuse

P280 - Wear protective gloves, protective clothing, eye protection, and face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical attention

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P271 - Use only outdoors or in a well-ventilated area

- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P312 Call a POISON CENTER or doctor if you feel unwell
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed
- P405 Store locked up
- P501 Dispose of contents/ container to an approved waste disposal plant

P273 - Avoid release to the environment

P270 - Do not eat, drink or smoke when using this product

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P330 - Rinse mouth

Other Hazards Known

May be harmful in contact with skin Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Family Chemical nature Mixture. Mixture of inorganic salts.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Sodium bisulfite	7631-90-5	50 - 60%	-
Sodium dithionite	7775-14-6	40 - 50%	-

4. FIRST AID MEASURES

Description of first aid measures

Product Code(s) 30012 Issue Date 10-Jul-2019 Version 4.5	Product Name RoVer® Rust Remover Revision Date 26-Jan-2024 Page 3 / 15		
General advice	Show this safety data sheet to the doctor in attendance.		
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.		
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.		
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.		
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.		
Self-protection of the first aider	Avoid contact with skin, eyes or clothing.		
Most important symptoms and effe	ects, both acute and delayed		
Symptoms	Burning sensation.		
Indication of any immediate medic	al attention and special treatment needed		
Note to physicians	Tractourptomotionly		

Note to physicians 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	Caution: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Sodium oxides. Sulfur oxides.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

U.S. Notice	Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.
Personal precautions, protective ec	quipment and emergency procedures
Personal precautions	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.
Other Information	Refer to protective measures listed in Sections 7 and 8.
Environmental precautions	

Product Code(s) 30012 Issue Date 10-Jul-2019 Version 4.5	Product Name RoVer® Rust Remover Revision Date 26-Jan-2024 Page 4 / 15			
Environmental precautions	Prevent further leakage or spillage if safe to do so.			
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	Take up mechanically, placing in appropriate containers for disposal.			
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.			
Reference to other sections	See section 8 for more information. See section 13 for more information.			

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. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.
Conditions for safe storage, includ	ing any incompatibilities
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.
Flammability class	Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Sodium bisulfite CAS#: 7631-90-5	TWA: 5 mg/m ³	(vacated) TWA: 5 mg/m ³	TWA: 5 mg/m ³

Appropriate engineering controls

Engineering Controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hand Protection	Wear suitable gloves. Impervious gloves. Barrier creams may help to protect the exposed areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016.
Eye/face protection	If splashes are likely to occur, wear safety glasses with side-shields.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
General Hygiene Considerations	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this

Product Name RoVer® Rust Remover Revision Date 26-Jan-2024 Page 5 / 15

product. Avoid contact with skin, eyes or clothing.

Environmental exposure controlsLocal authorities should be advised if significant spillages cannot be contained. Do not allow
into any sewer, on the ground or into any body of water.Thermal hazardsNone under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Odor	powder Sulfur-like	Solid		Color Odor threshold	white No data ava	ilable
Property			<u>Values</u>			Remarks • Method
Molecular weight	t		Not applicable			
рН			5.3			5% Solution
Melting point / fro	eezing point		= 52 °C / 1	125.6 °F		
Initial boiling poi	nt and boiling rang	ge	No data availal	ble		
Evaporation rate			Not applicable			
Vapor pressure			Not applicable			
Relative vapor de	ensity		No data availa	able		
Specific gravity -	VALUE 1		2.29			
Partition coeffici	ent		log K _{ow} ~ -2.34			
Soil Organic Car Coefficient	bon-Water Partitio	n	log K _{oc} ~ -0.19			
Autoignition tem	perature		No data availal	ble		
Decomposition t	emperature		52.2 °C / 126	6 °F		
Dynamic viscosi	ty		Not applicable			
Kinematic viscos	sity		Not applicable			
Solubility/ies)						

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
None reported	No information available	No data available	No information available

Other information

Metal Corrosivity

Product Name RoVer® Rust Remover Revision Date 26-Jan-2024 Page 6 / 15

Steel Corrosion Rate Aluminum Corrosion Rate

Not applicable Not applicable

Volatile Organic Compounds (VOC) Content Not applicable

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Sodium bisulfite	7631-90-5	No data available	-
Sodium dithionite	7775-14-6	Not applicable	-

Explosive properties

Upper explosion limit Lower explosion limit	No data available No data available
Flammable properties	
Flash point	Not applicable
Flammability Limit in Air Upper flammability limit: Lower flammability limit:	No data available No data available
Oxidizing properties	No data available.
Bulk density	No data available

10. STABILITY AND REACTIVITY

Reactivity Not applicable.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

Contact with water or moisture may generate an unpleasant, irritating odor similar to rotten eggs. Sulfur oxides. Sodium oxides.

11. TOXICOLOGICAL INFORMATION

EN / AGHS

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye contact	Irritating to eyes. Causes serious eye irritation.
Skin contact	Causes skin irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.
Symptoms	Redness. May cause redness and tearing of the eyes.

Acute toxicity

Based on available data, the classification criteria are not met

Mixture

Test data reported below.

Oral Exposure Route

Endpoint type	Toxicological	Key literature references and sources for data
Rat	effects	Outside testing
LD50	Behavioral	
	Decreased	
	locomotor activity	
	Chronic	
	Death	
	Eye	
	Ptosis	
	Lungs, Thorax,	
	or Respiration	
	Respiratory	
	depression	
	Skin and	
	Appendages	
	Piloerection	
Ingredient Acute 7	ovicity Data	

Ingredient Acute Toxicity Data No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	Rat LD₅₀	1131 mg/kg	None reported	None reported	RTECS
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	Mouse LD50	1500 mg/kg	None reported	None reported	ERMA
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	Rat LD₅₀	> 2000 mg/kg	None reported	None reported	RTECS
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	Rat LC₅₀	> 5.5 mg/L	4 hours	None reported	No information available

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

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

ATEmix (oral)	No information available
ATEmix (dermal)	4,386.00 mg/kg
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

Skin corrosion/irritation

Classification based on data available for ingredients. Irritating to skin.

Mixture

No data available.

Ingredient Skin Corrosion/Irritation Data

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	Standard Draize Test	Rabbit	500 mg	None reported	Mild skin irritant	RTECS
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	Standard Draize Test	Rabbit	800 mg	None reported	Mild skin irritant	IUCLID

Serious eye damage/irritation

Classification based on data available for ingredients. Irritating to eyes.

Mixture

No data available.

Ingredient Eye Damage/Eye Irritation Data

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	Standard Draize Test	Rabbit	100 mg	24 hours	Mild eye irritant	RTECS
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	Standard Draize Test	Rabbit	100 mg	None reported	Eye irritant	IUCLID

Respiratory or skin sensitization

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

Mixture

No data available.

Ingredient Sensitization Data

No data available.

sources for data

Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	Local Lymph Node Assay	Mouse	Not confirmed to be a skin sensitizer	No information available
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	Based on human experience	Human	Not confirmed to be a skin sensitizer	OECD 429: Skin Sensitization: Local Lymph Node Assay

STOT - single exposure

May cause respiratory irritation.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data No data available.

STOT - repeated exposure

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

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	Rat NOAEL	217 mg/kg	None reported	None reported	OECD 429: Skin Sensitization: Local Lymph Node Assay

Carcinogenicity

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

Mixture

No data available.

Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Sodium bisulfite	7631-90-5	-	Group 3	-	-
Sodium dithionite	7775-14-6	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply	
IARC (International Agency for Research on Cancer)	Group 3 - Not classifiable as a human	
	carcinogen	
NTP (National Toxicology Program)	Does not apply	
OSHA	Does not apply	

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	None reported	942 mg/kg	2 years	Negative results for carcinogenicity	No information available

Germ cell mutagenicity

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

Mixture invitro Data

No data available.

Substance invitro Data

No data available.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	Sister chromatid exchange	Human lymphocyte	0.05 mmol/L	None reported	Positive test result for mutagenicity	RTECS
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	Mutation in microorganisms	Salmonella typhimurium	None reported	None reported	Negative	IUCLID

Mixture invivo Data

No data available.

Substance invivo Data

No data available.

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	Cytogenetic analysis	Rat	1200 mg/kg	None reported	Negative test result for mutagenicity	IUCLID

Reproductive toxicity

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

Mixture

No data available.

Ingredient Reproductive Toxicity Data

No data available.

Aspiration hazard

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

<u>Mixture</u>

Aquatic Acute Toxicity No data available.

Aquatic Chronic Toxicity No data available.

Substance

Aquatic Acute Toxicity No data available.

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	96 hours	Gambusia affinis	LC ₅₀	240 mg/L	IUCLID

EN / AGHS

Product Name RoVer® Rust Remover Revision Date 26-Jan-2024 **Page** 11/15

Sodium dithionite	96 hours	Leuciscus idus	LC50	>= 46 mg/L	IUCLID
(40 - 50%)					
CAS#: 7775-14-6					
Chemical name	Exposure	Species	Endpoint	Reported dose	Key literature references and
	time		type		sources for data
Sodium bisulfite (50 - 60%) CAS#: 7631-90-5	48 Hours	Daphnia magna	LC50	119 mg/L	IUCLID
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	48 Hours	Daphnia magna	EC50	98 mg/L	IUCLID

Aquatic Chronic Toxicity No data available.

Persistence and degradability

Mixture

No data available.

Bioaccumulation MATERIAL DOES NOT BIOACCUMULATE Mixture No data available.

Partition coefficient

Mobility

Soil Organic Carbon-Water Partition Coefficient

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

log Kow ~ -2.34

log Koc ~ -0.19

Waste treatment 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.			
US EPA Waste Number	Not applicable			
Special instructions for disposal	Work in an approved fume hood. Dilute material with excess water making a weaker than 5% solution. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. If permitted by regulation. Open cold water tap completely, slowly pour the material to the drain. Flush system with plenty of water. Check with local municipal and state authorities and waste contractors for pertinent local information regarding the proper disposal of chemicals.			
	14. TRANSPORT INFORMATION			
DOT	Not regulated			
TDG	Not regulated			
	Not regulated			
EN / AGHS	Page 11 / 15			

IMDG

Not regulated

Note:

No special precautions necessary.

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories	
TSCA	Complies
DSL/NDSL	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
TCSI	Complies
AICS	Complies
NZIoC	Complies

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

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as 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
Sodium bisulfite 7631-90-5	5000 lb	-	-	Х
EN / AGHS				Page 12 / 15

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

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)	
Sodium bisulfite	5000 lb	-	RQ 5000 lb final RQ	
7631-90-5			RQ 2270 kg final RQ	
U.S Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues				

Chemical name	U.S Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues
Sodium dithionite (40 - 50%) CAS#: 7775-14-6	Sabotage/Contamination

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

IMERC: Not applicable

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Sodium bisulfite 7631-90-5	Х	X	Х
Sodium dithionite 7775-14-6	Х	Х	Х

U.S. EPA Label Information

Chemical name	FIFRA	FDA
Sodium bisulfite	-	21 CFR 182.3739
Sodium dithionite	-	21 CFR 182.90

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL)

Chemical name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thersholds
Sodium bisulfite 7631-90-5	Declarable Substance (LR) Prohibited Substance (LR)	None reported

NFPA and HMIS Classifications

EN / AGHS

NFPA	Health hazards - 2	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 2	Flammability - 0	Physical hazards - 0	Personal protection -
				-1

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

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	EPA (Environmental Protection Agency)
ERMA	ERMA (New Zealands Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	FDA (Food & Drug Administration)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident
GESTIS	Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	
IUCLID	IPCS INCHEM (International Programme on Chemical Safety)
	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data Australia National Industrial Oberniada Natification and Assessment Ochemis (NIONAO)
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
Х	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN* RSP+ C M	Skin designation Respiratory sensitization Carcinogen mutagen	SKN+ ** R	Skin sensitization Hazard Designation Reproductive toxicant

Product Name RoVer® Rust Remover Revision Date 26-Jan-2024 Page 15 / 15

Prepared By	Hach Product Compliance Department
Issue Date	10-Jul-2019
Revision Date	26-Jan-2024
Revision Note	None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet