SAFETY DATA SHEET

Issue Date 27-Jan-2023 **Revision Date** 02-Feb-2023 **Version** 1

1. Identification

Product identifier

Product Name COD TNTPlus™, HR (20-1500 MG/L)

Other means of identification

Product Code(s) TNT822

UN/ID no UN3316

Detailed information about the manufacturer, supplier, and/or importer

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

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory Use

Restrictions on use Consumer use

Emergency telephone number

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

2. Hazard(s) identification

Classification of the substance or mixture

Corrosive to metals	Category 1
Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive toxicity	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Label elements

Signal word Danger

Hazard statements

H290 - May be corrosive to metals
H302 - Harmful if swallowed
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340 - May cause genetic defects
H350 - May cause cancer
H361 - Suspected of damaging fertility or the unborn child
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements
P270 - Do not eat, drink or smoke when using this product
P501 - Dispose of contents/ container to an approved waste disposal plant
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P405 - Store locked up
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor
P363 - Wash contaminated clothing before reuse
P284 - In case of inadequate ventilation wear respiratory protection
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor
P272 - Contaminated work clothing should not be allowed out of the workplace
P362 + P364 - Take off contaminated clothing and wash it before reuse
P201 - Obtain special instructions before use
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P273 - Avoid release to the environment
P391 - Collect spillage
P234 - Keep only in original container
P390 - Absorb spillage to prevent material damage

Other hazards which do not result in classification

No information available.

3. Composition/information on ingredients

Substance

Not applicable

Mixture

Product Code(s) TNT822

Chemical nature Aqueous solution of inorganic acids and salts.

Chemical name	CAS No	Weight-%
Sulfuric acid	7664-93-9	80 - 90%

Sulfuric acid, mercury(2+) salt (1:1)	7783-35-9	<1%
Sulfuric acid, disilver(1+) salt	10294-26-5	<1%
Chromium trioxide	1333-82-0	<1%

4. First-aid measures

Description of necessary first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention. May cause allergic respiratory reaction. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Skin contact Get immediate medical attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention. May produce an allergic reaction.

For emergency responders

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms/effects, acute and delayed

Symptoms Burning sensation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Product itself does not burn.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

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

Specific hazards arising from the chemical The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. Product is or contains a sensitizer. May cause sensitization by inhalation. May cause sensitization by skin contact.

Hazardous combustion products Sulfur oxides. chromium oxides. Mercury.

Special protective actions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

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. Attention! Corrosive material. Keep people away from and upwind of spill/leak.

Methods and material for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

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

Other information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

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. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

Storage Conditions Accessible only for authorized persons. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

Incompatible materials Oxidizing agent. Acids. Bases.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Chemical name	ACGIH TLV	Philippines
Sulfuric acid	TWA: 0.2 mg/m³ thoracic particulate	TWA: 1 mg/m³

7664-93-9	matter	
Sulfuric acid, mercury(2+) salt (1:1) 7783-35-9	TWA: 0.025 mg/m³ Hg S*	TWA: 0.05 mg/m³
Sulfuric acid, disilver(1+) salt 10294-26-5	TWA: 0.01 mg/m³ Ag	TWA: 0.01 mg/m³
Chromium trioxide 1333-82-0	dermal sensitizer;respiratory sensitizer STEL: 0.0005 mg/m³ Cr(VI) inhalable particulate matter TWA: 0.0002 mg/m³ Cr(VI) inhalable particulate matter S*	TWA: 0.1 mg/m³

Biological occupational exposure limits

Chemical name	ACGIH
Sulfuric acid, mercury(2+) salt (1:1) 7783-35-9	35 µg/g creatinine - urine (Total inorganic mercury) - prior to shift 15 µg/L - blood (Total inorganic mercury) - end of shift at end of workweek
Chromium trioxide 1333-82-0	25 µg/L - urine (Total chromium) - end of shift at end of workweek 10 µg/L - urine (Total chromium) - increase during shift

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

Hand protection Wear suitable gloves. Impervious gloves.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Short term	Wear protective nitrile rubber gloves	0,40 mm	>30 minutes
Long term (repeated)	Wear protective Viton™ gloves	0,70 mm	>480 minutes

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.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Turbid solution

Physical state	Liquid	**Odor**	Odorless
Color	light orange	**Odor threshold**	Not applicable

Property	Values	Remarks • Method
Molecular weight	Not applicable	
pH	< 0.5	@ 20 °C
Melting point / freezing point	4 °C / 39.2 °F	
Initial boiling point and boiling range	~ 300 °C / 572 °F	
Evaporation rate	0.16 (water = 1)	
Vapor pressure	1.725 mm Hg / 0.23 kPa at 25 °C / 77 °F	
Relative vapor density	0.03	
Specific Gravity	1.78	
Partition coefficient	Not applicable	
Soil Organic Carbon-Water Partition Coefficient	Not applicable	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	~ 2.499 cP (mPa s) at 20 °C / 68 °F	
Kinematic viscosity	~ 1.404 cSt (mm^2/s) at 20 °C / 68 °F	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	> 10000 mg/L	25 °C / 77 °F

Solubility in other solvents

None reported	No information available	No data available	No information available

Other information

Metal Corrosivity
Classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate	4.88 mm/yr / 0.19 in/yr
Aluminum Corrosion Rate	55.4 mm/yr / 2.18 in/yr

Volatile Organic Compounds (VOC) Content

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Sulfuric acid	7664-93-9	No data available	-
Sulfuric acid, mercury(2+) salt (1:1)	7783-35-9	Not applicable	-
Sulfuric acid, disilver(1+) salt	10294-26-5	No data available	-
Chromium trioxide	1333-82-0	Not applicable	-

Explosive properties

Upper explosion limit	No data available
Lower explosion limit	No data available

Flammable properties

Flash point	No data available

Flammability Limit in Air

Upper flammability limit:	No data available
Lower flammability limit:	No data available

Oxidizing properties	No data available.

Other information

VOC content	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity	Corrosive to metal.
Stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air or moisture over prolonged periods.
Incompatible materials	Oxidizing agent. Acids. Bases.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Corrosive by inhalation. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause sensitization in susceptible persons.
Eye contact	Causes serious eye damage. Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.
Skin contact	Corrosive. Causes burns. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause sensitization by skin contact. Toxic in contact with skin. Causes severe burns. Avoid contact with skin and clothing.
Ingestion	Causes burns. Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. May cause additional affects as listed under "Inhalation".

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Itching. Rashes. Hives.

Acute toxicity

Numerical measures of toxicity

Substance
Test data reported below.
Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt (<1%) CAS#: 10294-26-5	Rat LD_{50}	> 5000 mg/kg	None reported	None reported	Vendor SDS
Chromium trioxide (<1%) CAS#: 1333-82-0	Rat LD_{50}	52 mg/kg	None reported	None reported	ERMA

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chromium trioxide (<1%) CAS#: 1333-82-0	Rat LD_{50}	55 mg/kg	None reported	None reported	ERMA

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chromium trioxide (<1%) CAS#: 1333-82-0	Rat LC_{50}	0.217 mg/L	4 hours	None reported	ERMA

Inhalation (Vapor) Exposure Route

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

ATEmix (oral)	614.30 mg/kg
ATEmix (dermal)	614.40 mg/kg
ATEmix (inhalation-dust/mist)	5.827 mg/l

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

Skin corrosion/irritation
Causes severe burns.
Mixture
No data available.
Substance
Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (80 - 90%) CAS#: 7664-93-9	Existing human experience	Human	None reported	None reported	Corrosive to skin	HSDB
Sulfuric acid,	Existing human	Human	None reported	None reported	Skin irritant	GESTIS

mercury(2+) salt (1:1) (<1%) CAS#: 7783-35-9	experience					
Sulfuric acid, disilver(1+) salt (<1%) CAS#: 10294-26-5	Standard Draize Test	Rabbit	500 mg	4 hours	Not corrosive or irritating to skin	ECHA
Chromium trioxide (<1%) CAS#: 1333-82-0	United States Department of Transportation (DOT) Skin Corrosion Test	Rabbit	500 mg	30 minutes	Corrosive to skin	ECHA

Serious eye damage/eye irritation

Classification based on data available for ingredients. Causes serious eye damage. Causes burns.

Mixture

No data available.

Substance

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (80 - 90%) CAS#: 7664-93-9	Existing human experience	Human	None reported	None reported	Corrosive to eyes	HSDB
Sulfuric acid, mercury(2+) salt (1:1) (<1%) CAS#: 7783-35-9	Existing human experience	Human	None reported	None reported	Eye irritant	GESTIS
Sulfuric acid, disilver(1+) salt (<1%) CAS#: 10294-26-5	Standard Draize Test	Rabbit	180 mg	None reported	Corrosive to eyes	ECHA
Chromium trioxide (<1%) CAS#: 1333-82-0	Standard Draize Test	Rabbit	50 mg	7 days	Corrosive to eyes	ECHA

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Mixture

No data available.

Substance

Test data reported below.

Skin Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt (<1%) CAS#: 10294-26-5	*in vivo* Assay	Guinea pig	Not confirmed to be a skin sensitizer	ECHA

Germ cell mutagenicity

Contains a known or suspected mutagen. Classification based on data available for ingredients. May cause genetic defects.

Mixture *invitro* **Data**

No data available.

Substance *invitro* **Data**

Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (80 - 90%)	Cytogenetic analysis	Hamster ovary	4 mmol/L	None reported	Positive test result for mutagenicity	No information available

CAS#: 7664-93-9						
Sulfuric acid, disilver(1+) salt (<1%) CAS#: 10294-26-5	Mutation in mammalian somatic cells	Human lymphocyte	.08 mg/L	3 hours	Negative	ECHA
Chromium trioxide (<1%) CAS#: 1333-82-0	Morphological transformation	Human fibroblast	100 nmol/L	None reported	Positive test result for mutagenicity	RTECS

Mixture *invivo* **Data**
No data available.
Substance *invivo* **Data**
No data available.
Carcinogenicity
Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.
Mixture
No data available.
Substance
No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Sulfuric acid	7664-93-9	A2	Group 1	Known	X
Sulfuric acid, mercury(2+) salt (1:1)	7783-35-9	-	Group 3	-	-
Sulfuric acid, disilver(1+) salt	10294-26-5	-	-	-	-
Chromium trioxide	1333-82-0	A1	Group 1	Known	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	A2 - Suspected Human Carcinogen A1 - Known Human Carcinogen
IARC (International Agency for Research on Cancer)	Group 1 - Carcinogenic to Humans Group 3 - Not classifiable as a human carcinogen
NTP (National Toxicology Program)	Known - Known Carcinogen
OSHA	X - Present

Reproductive toxicity
Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.
Mixture
No data available.
Substance
Test data reported below.
Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid (80 - 90%) CAS#: 7664-93-9	Rabbit TC_{Lo}	0.02 mg/L	7 hours	**Specific Developmental Abnormalities** Musculoskeletal system	No information available

STOT - single exposure
Based on available data, the classification criteria are not met.
Mixture
No data available.
Substance
Test data reported below.
Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid	Human	0.144 mg/L	5 minutes	**Lungs, Thorax, or**	RTECS

(80 - 90%) CAS#: 7664-93-9	TD_{Lo}			**Respiration** Dyspnea	

STOT - repeated exposure
Based on available data, the classification criteria are not met.
Mixture
No data available.
Substance
Test data reported below.
Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt (<1%) CAS#: 10294-26-5	Rat LD	> 2000 mg/kg	14 days	No toxicological effects observed	ECHA

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid (80 - 90%) CAS#: 7664-93-9	Human TC_{Lo}	0.003 mg/L	168 days	**Musculoskeletal** Changes in teeth and supporting structures	RTECS

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

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity 0.001 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Mixture

Aquatic Acute Toxicity
No data available.
Aquatic Chronic Toxicity
No data available.
Substance

Aquatic Acute Toxicity
Test data reported below.
Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sulfuric acid, disilver(1+) salt (<1%) CAS#: 10294-26-5	96 hours	*Pimephales promelas*	LC_{50}	0.0012 mg/L	GESTIS
Chromium trioxide (<1%) CAS#: 1333-82-0	96 hours	*Tilapia mossambica*	LC_{50}	21.05 mg/L	GESTIS

Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data

Sulfuric acid, disilver(1+) salt (<1%) CAS#: 10294-26-5	48 Hours	*Ceriodaphnia dubia*	LC_{50}	0.0045 mg/L	GESTIS
Chromium trioxide (<1%) CAS#: 1333-82-0	48 Hours	*Daphnia magna*	EC_{50}	0.162 mg/L	GESTIS

Aquatic Chronic Toxicity
No data available.
Persistence and degradability

Mixture
No data available.
Bioaccumulation

Mixture
No data available.
Partition coefficient Not applicable

Mobility

Soil Organic Carbon-Water Partition Coefficient Not applicable

Other adverse effects
No information available.

13. Disposal considerations

Disposal methods

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

Contaminated packaging Do not reuse empty containers.

14. Transport information

IMDG

UN number or ID number	UN3316
Proper shipping name	CHEMICAL KIT
Transport hazard class(es)	9
EmS-No	F-A, S-P
Special precautions for user	251, 340
Marine pollutant	This material meets the definition of a marine pollutant
Description	UN3316, CHEMICAL KIT (Sulfuric acid, disilver(1+) salt), 9, Marine pollutant

IATA

UN number or ID number	UN3316
Proper shipping name	Chemical kit
Transport hazard class(es)	9
ERG Code	9L
Description	UN3316, Chemical kit, 9

ADR

UN number or ID number	3316
Proper shipping name	CHEMICAL KIT
Description	3316, CHEMICAL KIT, 9, II, Environmentally Hazardous
Transport hazard class(es)	9 II

Packing Group	
Classification code	M11
Environmental hazards	Yes
Special precautions for user	251, 340

DOT

UN/ID no	UN3316
Proper shipping name	CHEMICAL KITS
Transport hazard class(es)	9
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to DOT.
Description	UN3316, CHEMICAL KITS, 9, Marine pollutant (Sulfuric acid, disilver(1+) salt, Sulfuric acid, mercury(2+) salt (1:1))
Emergency Response Guide Number	171

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.

15. Regulatory information

Regulatory information

National regulations

Chemical Control Order and Priority Chemical List

Chemical name	Priority Chemical List	Substances Subject to Chemical Control Orders (CCO)	Initial List of Single Substances and Compounds Covered under Chemical Control Order (CCO) and Priority Chemical
Sulfuric acid, mercury(2+) salt (1:1)	Applicable	Applicable	Not applicable
Chromium trioxide	Applicable	Applicable	Applicable

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

Chemical name	Chemicals Subject to Prior Informed Consent (PIC)
Sulfuric acid, mercury(2+) salt (1:1) - 7783-35-9	X

International Inventories

PICCS	Complies.
TSCA	Complies.
DSL/NDSL	Complies.
EINECS/ELINCS	Complies.
ENCS	Complies.
IECSC	Complies.
KECL - Existing substances	Complies.
AICS	Complies.
NZIoC	Contact supplier for inventory compliance status.

PICCS - Philippines Inventory of Chemicals and Chemical Substances

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
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

16. Other information

Issue Date 27-Jan-2023

Revision Date 02-Feb-2023

Prepared By Hach Product Compliance Department

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

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATSDR	Agency for Toxic Substances and Disease Registry (ATSDR)
CHEMVIEW not translate code	U.S. Environmental Protection Agency ChemView Database
EFSA not translate code	European Food Safety Authority (EFSA)
EPA not translate code	EPA (Environmental Protection Agency)
EPA_AEGL not translate code	Acute Exposure Guideline Level(s) (AEGL(s))
EPA_FIFRA not translate code	U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
EPA_HPV not translate code	U.S. Environmental Protection Agency High Production Volume Chemicals
FOOD_JOURN not translate code	Food Research Journal
HSDB not translate code	Hazardous Substance Database
IUCLID not translate code	International Uniform Chemical Information Database (IUCLID)
JAPAN_GHS not translate code	National Institute of Technology and Evaluation (NITE)
NICNAS not translate code	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH not translate code	NIOSH (National Institute for Occupational Safety and Health)
NLM_CIP not translate code	National Library of Medicine's ChemID Plus (NLM CIP)
NLM_PUBMED not translate code	National Library of Medicine’s PubMed database (NLM PUBMED)
NTP not translate code	National Toxicology Program (NTP)
NZ_CCID not translate code	New Zealand's Chemical Classification and Information Database (CCID)
OECD_EHSP not translate code	Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
OECD_HPV not translate code	Organization for Economic Co-operation and Development High Production Volume Chemicals Program
OECD_SIDS not translate code	Organization for Economic Co-operation and Development Screening Information Data Set
WHO not translate code	World Health Organization
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 Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)

IUCLID	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
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
X	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*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

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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.

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End of Safety Data Sheet