SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier
Product Name TNTplus HACH Anionic Surfactants Reagent A

Other means of identification
Product Code(s) TNT874A

Safety data sheet number M03245

UN/ID no UN3316

Recommended use of the chemical and restrictions on use
Recommended Use Water Analysis. Oxidation-reduction indicator.
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 not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Signal word
None

Hazard statements
The product contains no substances which at their given concentration, are considered to be hazardous to health

Other Hazards Known

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Not applicable

Mixture

Chemical Family	Mixture.
Chemical nature	Aqueous solution of organic salts.

4. FIRST AID MEASURES

Description of first aid measures

General advice	No hazards which require special first aid measures. Use first aid treatment according to the nature of the injury.
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.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms	See Section 11 for additional Toxicological Information.

Indication of any immediate medical attention and special treatment needed

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	Carbon monoxide. Carbon dioxide (CO2).
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 equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

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 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.

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.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems. Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures, such 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. 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	Wear safety glasses with side shields (or goggles).
Skin and body protection	No special protective equipment required.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	Local 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 hazards	None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	aqueous solution	**Color**	blue
Odor	Odorless	**Odor threshold**	No data available

Property	Values	Remarks • Method
Molecular weight	No data available	
pH	7	@ 20 °C
Melting point / freezing point	~ 0 °C / 32 °F	
Initial boiling point and boiling range	~ 100 °C / 212 °F	
Evaporation rate	1 (water = 1)	
Vapor pressure	23.777 mm Hg / 3.17 kPa at 25 °C / 77 °F	
Relative vapor density	0.62	
Specific Gravity	1.00	
Partition coefficient	Not applicable	
Soil Organic Carbon-Water Partition Coefficient	Not applicable	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	No data available	
Kinematic viscosity	No data available	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
No information available	No data available	No information available

Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
None reported	No information available	No data available	No information available

Other information

Metal Corrosivity

Steel Corrosion Rate	No data available
Aluminum Corrosion Rate	No data available

Volatile Organic Compounds (VOC) Content

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.
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
None under normal processing.

Conditions to avoid
None known based on information supplied.

Incompatible materials
Strong oxidizing agents, strong acids, and strong bases.

Hazardous decomposition products
No information available.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	No known effect based on information supplied.
Eye contact	No known effect based on information supplied.
Skin contact	No known effect based on information supplied.
Ingestion	No known effect based on information supplied.
Symptoms	No information available.

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

Mixture
No data available.

Ingredient Acute Toxicity Data
No data available.

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

Acute Toxicity Estimations (ATE)

ATEmix (oral)	No information available
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

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

Mixture
No data available.

Ingredient Skin Corrosion/Irritation Data
No data available.

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

Mixture
No data available.

Ingredient Eye Damage/Eye Irritation Data
No data available.

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

Mixture
No data available.

Ingredient Sensitization Data

No data available.

STOT - single exposure
Based on available data, the classification criteria are not met.

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.

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

Mixture
No data available.

Ingredient Carcinogenicity Data
No data available.

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

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.

Mixture *invivo* Data
No data available.

Substance *invivo* Data
No data available.

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

Unknown aquatic toxicity — 0% of the mixture consists of components(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
No data available.

Aquatic Chronic Toxicity
No data available.

Persistence and degradability

Mixture
No data available.

Bioaccumulation
MATERIAL DOES NOT BIOACCUMULATE
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

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

14. TRANSPORT INFORMATION

DOT

UN/ID no	UN3316
Proper shipping name	CHEMICAL KIT
Transport hazard class(es)	9
Description	UN3316, CHEMICAL KIT, 9
Emergency Response Guide Number	171

TDG

UN/ID no	UN3316
Proper shipping name	CHEMICAL KIT
Transport hazard class(es)	9
Description	UN3316, CHEMICAL KIT, 9

IATA

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

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
Description	UN3316, CHEMICAL KIT, 9

Additional information
This product forms part of a kit. Information in this section relates to the kit as a whole.

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 - Existing substances	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	No
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)

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 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.

U.S. EPA Label Information

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

Special Comments
None

Additional information

Global Automotive Declarable Substance List (GADSL)
Not applicable
NFPA and HMIS Classifications

NFPA	**Health hazards** - 0	**Flammability** - 0	**Instability** - 0	**Physical and chemical properties** -
HMIS	**Health hazards** - 0	**Flammability** - 0	**Physical hazards** - 0	**Personal protection** - X - I

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 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		

Prepared By	Hach Product Compliance Department
Issue Date	23-12-2019
Revision Date	08-Feb-2023

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.

HACH COMPANY©2022

End of Safety Data Sheet

SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier
Product Name TNTplus HACH Anionic Surfactants Sample Vial

Other means of identification
Product Code(s) TNT874R

Safety data sheet number M03247

UN/ID no UN3316

Recommended use of the chemical and restrictions on use
Recommended Use Water Analysis.
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)

Flammable liquids	Category 4
Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Signal word
Danger

Hazard statements
H227 - Combustible liquid
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H331 - Toxic if inhaled
H351 - Suspected of causing cancer
H361 - Suspected of damaging fertility or the unborn child
H370 - Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements
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
P501 - Dispose of contents/ container to an approved waste disposal plant
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P311 - Call a POISON CENTER or doctor/physician
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
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
P201 - Obtain special instructions before use
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
P403 + P235 - Store in a well-ventilated place. Keep cool

Other Hazards Known
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Not applicable

Mixture

Chemical Family	Mixture.
Chemical nature	No information available.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Chloroform	67-66-3	70 - 80%	-
Methanol	67-56-1	1 - 5%	-
Phosphoric acid, disodium salt	7558-79-4	<1%	-

4. FIRST AID MEASURES

Description of first aid measures

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

Inhalation IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Immediate medical attention is required. 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.

Eye contact If symptoms persist, call a physician. 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 medical attention if irritation develops and persists.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

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 or poison control center immediately.

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. 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. Do not breathe vapor or mist.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

Hazardous combustion products Chlorine. Phosgene.

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 equipment and emergency procedures

Personal precautions

See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information

Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. 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.

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

Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Remove contaminated clothing and shoes. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. 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. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store in accordance with particular national and local regulations.

Flammability class Class IIIA

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Chloroform CAS#: 67-66-3	TWA: 10 ppm	(vacated) TWA: 2 ppm (vacated) TWA: 9.78 mg/m³ Ceiling: 50 ppm Ceiling: 240 mg/m³	IDLH: 500 ppm STEL: 2 ppm 60 min STEL: 9.78 mg/m³ 60 min
Methanol CAS#: 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m³ (vacated) SKN*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm STEL: 325 mg/m³

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such 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 Impervious gloves. Wear suitable gloves. 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 Tight sealing safety goggles.

Skin and body protection Long sleeved clothing. Wear suitable protective clothing.

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

Environmental exposure controls Local 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 hazards None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	clear	**Color**	colorless
Odor	sweet	**Odor threshold**	No data available

Property	Values	Remarks • Method
Molecular weight	No data available	
pH	8.0	@ 20 °C
Melting point / freezing point	~ -4 °C / 24.8 °F	
Initial boiling point and boiling range	61 °C / 141.8 °F	
Evaporation rate	0.15 (water = 1)	
Vapor pressure	1.65 mm Hg / 0.22 kPa at 20 °C / 68 °F	
Relative vapor density	2.05	
Specific Gravity	No data available	
Partition coefficient	Not applicable	
Soil Organic Carbon-Water Partition Coefficient	Not applicable	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	No data available	
Kinematic viscosity	No data available	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	8000 mg/L	20 °C / 68 °F

Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
None reported	No information available	No data available	No information available

Other information

Metal Corrosivity

Steel Corrosion Rate	No data available
Aluminum Corrosion Rate	No data available

Volatile Organic Compounds (VOC) Content
See ingredients information below

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Chloroform	67-66-3	100%	X
Methanol	67-56-1	100%	X
Phosphoric acid, disodium salt	7558-79-4	No data available	-

Explosive properties

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

Flammable properties

Flash point	> 65 °C / 149 °F
Method	

Flammability Limit in Air

Upper flammability limit:	No data available
Lower flammability limit:	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
None under normal processing.

Conditions to avoid
Heat, flames and sparks. Excessive heat.

Incompatible materials
Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products
None under normal use conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract. Toxic by inhalation.
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. Coughing and/ or wheezing. Difficulty in breathing.

Acute toxicity
Harmful if swallowed
Toxic if inhaled

Mixture
No data available.

Ingredient Acute Toxicity Data
Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Rat LD_{50}	695 mg/kg	None reported	None reported	GESTIS

Dermal Exposure Route

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Rat LC_{50}	47.702 mg/L	4 hours	None reported	RTECS

Inhalation (Vapor) Exposure Route

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)	737.20 mg/kg
ATEmix (dermal)	10,676.20 mg/kg
ATEmix (inhalation-dust/mist)	0.646 mg/l
ATEmix (inhalation-vapor)	106.80 mg/l
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
Test data reported below.

Chemical name	Test method	Species	Reported	Exposure	Results	Key literature

			dose	time		references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Standard Draize Test	Rabbit	None reported	None reported	Skin irritant	ECHA
Methanol (1 - 5%) CAS#: 67-56-1	OECD Test 439: In Vitro Skin Irritation: Reconstructed Human Epidermis (Rhe) Test Method	Rabbit	None reported	20 hours	Not corrosive or irritating to skin	ECHA
Phosphoric acid, disodium salt (<1%) CAS#: 7558-79-4	Standard Draize Test	Rabbit	500 mg	24 hours	Skin irritant	RTECS

Serious eye damage/irritation
Classification based on data available for ingredients. Irritating to eyes.

Mixture
No data available.

Ingredient Eye Damage/Eye Irritation Data
Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Standard Draize Test	Rabbit	20 mg	24 hours	Eye irritant	RTECS
Methanol (1 - 5%) CAS#: 67-56-1	OECD Test 439: In Vitro Skin Irritation: Reconstructed Human Epidermis (Rhe) Test Method	Rabbit	0.05 mL	24 hours	Not corrosive or irritating to eyes	ECHA
Phosphoric acid, disodium salt (<1%) CAS#: 7558-79-4	Standard Draize Test	Rabbit	500 mg	24 hours	Eye irritant	RTECS

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

Mixture
No data available.

Ingredient Sensitization Data
Test data reported below.

Skin Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	OECD Test No. 406: Skin Sensitization	Guinea pig	Not confirmed to be a skin sensitizer	ECHA
Methanol (1 - 5%) CAS#: 67-56-1	OECD Test No. 406: Skin Sensitization	Guinea pig	Not confirmed to be a skin sensitizer	ECHA

STOT - single exposure

Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed.

Mixture
No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data
Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Man LD_{Lo}	2514 mg/kg	None reported	**Kidney, Ureter, or Bladder** Changes in tubules (including acute renal failure, acute tubular necrosis)	RTECS
Methanol (1 - 5%) CAS#: 67-56-1	Human LD_{Lo}	143 mg/kg	None reported	**Lungs, Thorax, or Respiration** Dyspnea	RTECS

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Human TC_{Lo}	171 mg/L	4 hours	**Behavioral** Hallucinations, Distorted perceptions	RTECS
Methanol (1 - 5%) CAS#: 67-56-1	Human TC_{Lo}	300 mg/L	None reported	**Lungs, Thorax, or Respiration** Other changes	RTECS

STOT - repeated exposure
Causes damage to organs through prolonged or repeated exposure.

Mixture
No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data
Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Rat TD_{Lo}	540 mg/kg	3 days	**Biochemical** Intermediary metabolism (other proteins) **Kidney, Ureter, or Bladder** Changes in tubules (including acute renal failure, acute tubular necrosis)	RTECS
Methanol (1 - 5%) CAS#: 67-56-1	Monkey	2340 mg/kg	3 days	None reported	ECHA

Inhalation (Dust/Mist) Exposure Route

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

Chloroform (70 - 80%) CAS#: 67-66-3	Rat TC_{Lo}	90 mg/L	90 days	**Kidney, Ureter, or Bladder** Changes in tubules (including acute renal failure, acute tubular necrosis) **Liver** Hepatitis (hepatocellular necrosis), diffuse **Nutritional and Gross Metabolic** Weight loss or decreased weight gain	RTECS

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Human TC_{Lo}	0.010 mg/L	365 days	**Gastrointestinal** Nausea or vomiting Other changes	RTECS

Carcinogenicity
Classification based on data available for ingredients. Contains a known or suspected carcinogen.

Mixture
No data available.

Ingredient Carcinogenicity Data
Test data reported below.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Chloroform	67-66-3	A3	Group 2B	Reasonably Anticipated	X
Methanol	67-56-1	-	-	-	-
Phosphoric acid, disodium salt	7558-79-4	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)	Group 2B - Possibly Carcinogenic to Humans
NTP (National Toxicology Program)	Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA	X - Present

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Mouse NOAEL	5 mg/L	2 years	**Kidney, Ureter, or Bladder** Kidney tumors	ECHA

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

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
Chloroform (70 - 80%) CAS#: 67-66-3	Mutation in microorganisms	*Salmonella typhimurium*	5%	24 hours	Negative	ECHA
Methanol (1 - 5%) CAS#: 67-56-1	DNA inhibition	Human lymphocyte	300 mmol/L	None reported	Positive test result for mutagenicity	RTECS

Mixture *invivo* Data
No data available.

Substance *invivo* Data
Test data reported below.

Oral Exposure Route

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Micronucleus test	Rat	480 mg/kg	5 days	Negative test result for mutagenicity	ECHA
Methanol (1 - 5%) CAS#: 67-56-1	DNA damage	Rat	0.405 mg/kg	None reported	Positive test result for mutagenicity	RTECS

Reproductive toxicity
Classification based on data available for ingredients. Contains a known or suspected reproductive toxin. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Mixture
No data available.

Ingredient Reproductive Toxicity Data
Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Mouse NOAEL	15.9 mg/kg	Multiple generations	**Effects on Fertility** Male fertility index (e.g. # males impregnating females per # males exposed to fertile nonpregnant females) Spermatogenesis (including genetic material, sperm morphology, motility, and count)	ECHA
Methanol (1 - 5%) CAS#: 67-56-1	Rat TD_{Lo}	4118 mg/kg	10 days	**Effects on Embryo or Fetus Specific Developmental Abnormalities** Ear Eye Fetotoxicity (except death e.g. stunted fetus) Urogenital System	RTECS

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Methanol (1 - 5%) CAS#: 67-56-1	Rat TC_{Lo}	0.0026 mg/L	22 days	**Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus)	RTECS

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	Rat NOAEL	3 mg/L	9 days	**Effects on Embryo or Fetus** Fetotoxicity (except death e.g. stunted fetus)	ECHA

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

12. ECOLOGICAL INFORMATION

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

Unknown aquatic toxicity 0% of the mixture consists of components(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
No data available.

Aquatic Chronic Toxicity
Test data reported below.

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Chloroform (70 - 80%) CAS#: 67-66-3	14 days	*Oryzias latipes*	NOEC	1.463 mg/L	ECHA

Persistence and degradability

Mixture
No data available.

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

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 U044 U154 D022

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Chloroform 67-66-3	U044	Included in waste streams: F024, F025, F039, K009, K010, K019, K020, K021, K029, K073, K116, K149, K150, K151, K158	6.0 mg/L regulatory level	U044
Methanol 67-56-1	-	Included in waste stream: F039	-	U154

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Chloroform 67-66-3	Category I - Volatiles	-	Toxic waste waste number F025 Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	Toxic waste waste number K021 Waste description: Aqueous spent antimony catalyst waste from fluoromethanes production.

14. TRANSPORT INFORMATION

DOT

UN/ID no	UN3316
Proper shipping name	CHEMICAL KIT
Transport hazard class(es)	9
Description	UN3316, CHEMICAL KIT, 9
Emergency Response Guide Number	171

TDG

UN/ID no	UN3316
Proper shipping name	CHEMICAL KIT
Transport hazard class(es)	9

Description	UN3316, CHEMICAL KIT, 9

IATA

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

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
Description	UN3316, CHEMICAL KIT, 9

Additional information
This product forms part of a kit. Information in this section relates to the kit as a whole.

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 - Existing substances	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 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 %
Chloroform (CAS #: 67-66-3)	0.1
Methanol (CAS #: 67-56-1)	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
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
Chloroform 67-66-3	10 lb	X	X	X
Phosphoric acid, disodium salt 7558-79-4	5000 lb	-	-	X

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)
Chloroform 67-66-3	10 lb 1 lb	10 lb	RQ 10 lb final RQ RQ 4.54 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ
Methanol 67-56-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Phosphoric acid, disodium salt 7558-79-4	5000 lb	-	RQ 5000 lb final RQ 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
Chloroform (70 - 80%) CAS#: 67-66-3	Release - Toxic

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Chloroform (CAS #: 67-66-3)	Carcinogen Developmental
Methanol (CAS #: 67-56-1)	Developmental

WARNING: This product can expose you to chemicals including Methanol, Chloroform, which are known to the State of California to cause cancer or birth defects or reproductive harm.
For more information, go to http://www.P65Warnings.ca.gov

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
Chloroform 67-66-3	X	X	X
Methanol 67-56-1	X	X	X
Phosphoric acid, disodium salt 7558-79-4	X	X	X

U.S. EPA Label Information

Chemical name	FIFRA	FDA
Methanol	180.0910	-
Phosphoric acid, disodium salt	180.0910	21 CFR 182.1778,21 CFR 182.6290,21 CFR 182.6778,21 CFR 182.8778

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
Methanol 67-56-1	Declarable Substance (FI) Declarable Substance (LR) Prohibited Substance (FI) Prohibited Substance (LR)	0.6 %

NFPA and HMIS Classifications

NFPA	Health hazards - 3	Flammability - 2	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 3 - *	Flammability - 2	Physical hazards - 0	Personal protection - X - I

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 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		

Prepared By	Hach Product Compliance Department
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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