

SAFETY DATA SHEET

Issue Date 23-07-2018

Revision Date 16-Feb-2024

Version 1.5

Page 1/12

1. IDENTIFICATION

А

Product identifier Product Name	Formaldehyde, Reagent			
<u>Other means of identification</u> Product Code(s)	TNT871A			
Safety data sheet number	M03639			

Recommended use of the chemical and restrictions on use Recommended Use Analytical reagent.

Consumer use. Not determined.

Details of the supplier of the safety data sheet

Manufacturer Address

Uses advised against

Restrictions on use

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

Product Code(s) TNT871A Issue Date 23-07-2018 Version 1.5 Product NameFormaldehyde, Reagent ARevision Date16-Feb-2024Page2 / 12

Substance Not applicable

<u>Mixture</u>

Chemical	Family
Chemical	nature

Mixture. aqueous solution.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No.	Percent Range	HMRIC #
Ammonium acetate	631-61-8	10 - 20%	-

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.			

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Specific hazards arising from the No information available. chemical

Hazardous combustion products None reported.

Special protective equipment for
fire-fightersFirefighters 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.

ersonal 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 containme	nt 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, includi	ng 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, 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. 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.			

Product Code(s) TNT871A Issue Date 23-07-2018 Version 1.5	Product Name Formaldehyde, Reagent A Revision Date 16-Feb-2024 Page 4 / 12					
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. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.					
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 Appearance Odor	aqueous solution Vinegar	Liquid		Color Odor threshold	colorless No data ava	ailable
Property_			Values			Remarks • Method
Molecular weight			Not applicable			
рН			7			@ 20 °C
Melting point / fre	ezing point		No data availal	ble		
Initial boiling poin	nt and boiling rang	e	No data availal	ble		
Evaporation rate			No data availal	ble		
Vapor pressure			No data availal	ble		
Relative vapor de	ensity		No data availa	able		
Specific gravity -	VALUE 1		1.034			
Partition coefficie	ent		No data availal	ble		
Soil Organic Carl Coefficient	oon-Water Partition	า	No data availal	ble		
Autoignition tem	perature		No data availal	ble		
Decomposition te	emperature		No data availal	ble		
Dynamic viscosit	y		No data availal	ble		
Kinematic viscos	ity		No data availal	ble		
<u>Solubility(ies)</u>						

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	> 10000 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

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

Volatile Organic Compounds (VOC) Content

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Ammonium acetate	631-61-8	No data available	-

Explosive properties

Upper explosion limit Lower explosion limit	No data available No data available
Flammable properties	
Flash point	No data available
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.

<u>Chemical stability</u> 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

None under normal use conditions.

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

Product Code(s) TNT871A Issue Date 23-07-2018 Version 1.5

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.

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Ammonium acetate	631-61-8	-	-	-	-

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.	
<u>Mixture</u>		
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.		
Mixture No data available.		
Partition coefficient	No data available	
<u>Mobility</u>		
Soil Organic Carbon-Water Partition	n Coefficient No data available	
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	No information available

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG	Not regulated

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 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 %
Ammonium acetate (CAS #: 631-61-8)	1.0

SARA 311/312 Hazard Categories

Acute health hazard

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
Ammonium acetate 631-61-8	5000 lb	-	-	Х

<u>CERCLA</u>

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)
Ammonium acetate	5000 lb	-	RQ 5000 lb final RQ
631-61-8			RQ 2270 kg final RQ
US State Regulations			

California Proposition 65

This product does not contain any Proposition 65 chemicals

IMERC: Dispose of in accordance with local, state and federal regulations or laws.

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
Ammonium acetate	X	X	Х
631-61-8			

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 -
				Х
				- 1

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

ACGIHACGIH (American Conference of Governmental Industrial Hygienists)ATSDRATSDR (Agency for Toxic Substances and Disease Registry)

Product Code(s) Issue Date 23-0 Version 1.5			Product Name Revision Date Page 11 / 12	Formaldehyde, Reagent A l6-Feb-2024
CCRIS CDC CEPA CICAD ECHA EEA EPA ERMA ECOSARS FDA GESTIS HSDB INERIS IPCS INCHEM IUCLID NITE NIH NIOSH LOLI NDF NICNAS NIOSH IDLH OSHA PEEN RTECS SIDS SYKE USDA USDC WHO		Estimation through EC FDA (Food & Drug Adı GESTIS (Information Insurance) HSDB (Hazardous Sut INERIS (The National IPCS INCHEM (Interna IUCLID (The Internation Japan National Institutes NIOSH (National Institutes NIOSH (National Institutes) LOLI (List of Lists - An no data Australia National Indu Immediately Dangerout	se Control) ronmental Protection hational Chemical Ass Chemicals Agency) nment Agency) rotection Agency) Environmental Risk I OSARS v1.11 part of ministration) System on Hazardou System on Hazardou ostances Data Bank) Industrial Environmer ational Programme or nal Uniform Chemica e of Technology and s of Health) ute for Occupational S international Chemic strial Chemicals Noti s to Life or Health Cafety and Health Adr Ecological Network) oxic Effects of Chemic nation Dataset) for H ent Institute (SYKE) Department of Agricul Department of Comm	Agency) sessment Documents) Management Authority) the Estimation Programs Interface (EPI) Suite™ is Substances of the German Social Accident in and Risks Institute) in Chemical Safety) I Information Database) Evaluation (NITE) Safety and Health) al Regulatory Database) fication and Assessment Scheme (NICNAS) ininistration of the US Department of Labor) cal Substances) igh Volume Chemicals ture)
-		ONTROLS/PERSONAL		
TWA	TWA (time-weight	•	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowab	le 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+ C M	Respiratory sensit Carcinogen mutagen	ization	** R	Hazard Designation Reproductive toxicant
Prepared By		Hach Product Complia	nce Department	
Issue Date		23-07-2018		
Revision Date		16-Feb-2024		
Revision Note		None		
<u>Disclaimer</u>				

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