

**Trade name:** Multi Star N**Product no.:** 248999**Current version :** 1.0.1, issued: 06.10.2021**Replaced version:** 1.0.0, issued: 18.05.2021**Region:** USA**SECTION 1: Identification****1.1 Product identifier**

Trade name

**Multi Star N****1.2 Recommended use of the chemical and restrictions on use****Recommended use of the chemical and restrictions on use**

Cleaner

**Restrictions on use**

No data available.

**1.3 Details of the supplier of the safety data sheet****Address**

Koch-Chemie GmbH

Einsteinstr. 42

D-59423 Unna

Telephone no. +49-2303-9 86 70-0

Fax no. +49-2303-9 86 70-26

**1.4 Emergency phone number**

(+1) 202 464 2554

**SECTION 2: Hazard(s) identification****2.1 Classification of the chemical****Classification of the chemical in accordance with paragraph (d) of 29 CFR § 1910.1200 "Hazard Communication"**

Serious Eye Damage - Category 1

Skin Corrosion / Irritation - Category 2

Specific Target Organ Toxicity - Single Exposure - respiratory tract irritation - Category 3

**Classification information**

Classification and labelling with respect to corrosivity and irritation to skin are based on toxicological studies performed on the product (mixture).

**2.2 Label elements****Pictogram(s)****Signal word**

Danger

**Hazard Statement(s)**

Health hazards

Causes skin irritation

Causes serious eye damage

May cause respiratory irritation

**Precautionary Statement(s)**

Prevention

Avoid breathing dust.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Response

If on skin: Wash with plenty of water and soap.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see first aid instruction on this label).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Disposal

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations

**2.3 Labelling information**

Trade name: Multi Star N

Product no.: 248999

Current version : 1.0.1, issued: 06.10.2021

Replaced version: 1.0.0, issued: 18.05.2021

Region: USA

No data available

**2.4 Hazards not otherwise classified (HNOC)**

No data available

**SECTION 3: Composition / information on ingredients****3.1 Substances**

Not applicable. The product is not a substance.

**3.2 Mixtures****Hazardous ingredients**

No	Substance name	Concentration	%
	<b>CAS no.</b>		
1	<b>2-propylheptane-1-ol, ethoxylated</b>		
	160875-66-1	>= 10.00 - < 25.00	%-b.w.
2	<b>Sodium p-cumenesulfonate (SCS)</b>		
	15763-76-5	>= 5.00 - < 10.00	%-b.w.
3	<b>2-aminoethanol</b>		
	141-43-5	>= 5.00 - < 10.00	%-b.w.
4	<b>Alcohols, C12-14, ethoxylated, sulfates, sodium salts</b>		
	68891-38-3	< 5.00	%-b.w.
5	<b>sodium hydroxide</b>		
	1310-73-2	< 2.50	%-b.w.

**SECTION 4: First-aid measures****4.1 Description of necessary first-aid measures****General information**

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

**After inhalation**

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air. In case of persisting adverse effects, consult a physician.

**After skin contact**

Wash immediately with plenty of water for several minutes. Consult a doctor if skin irritation persists.

**After eye contact**

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get immediate ophthalmic treatment.

**After ingestion**

Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person.

**4.2 Most important symptoms and effects, both acute and delayed**

No data available.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available.

**SECTION 5: Fire-fighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Water spray jet; Foam; Carbon dioxide; Dry chemical extinguisher

**Unsuitable extinguishing media**

Full water jet

**5.2 Specific hazards arising from the chemical**In the event of fire, the following can be released: Carbon dioxide (CO<sub>2</sub>); Carbon monoxide (CO); Nitrogen oxides (NO<sub>x</sub>); Sulfur oxides (S<sub>x</sub>O<sub>y</sub>)**5.3 Special protective equipment and precautions for fire-fighters**

Use self-contained breathing apparatus. Wear full protective suit.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

**Trade name:** Multi Star N**Product no.:** 248999**Current version :** 1.0.1, issued: 06.10.2021**Replaced version:** 1.0.0, issued: 18.05.2021**Region:** USA

Refer to protective measures listed in sections 7 and 8. Use personal protective clothing.

**For emergency responders**

Personal protective equipment (PPE) - see Section 8.

**6.2 Methods and materials for containment and cleaning up**

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in suitable container for disposal.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Precautions for safe handling**

Risks inherent to handling the product must be minimised by applying appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances.

**General protective and hygiene measures**

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing. Hold emergency shower available. Provide eye wash fountain in work area.

**7.2 Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place.

**Requirements for storage rooms and vessels**

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Always keep in containers of same material as the original.

**Incompatible products**

Substances to be avoided: see chapter 10.

**SECTION 8: Exposure controls / personal protection****8.1 Control parameters****Occupational exposure limit(s)**

No	Substance name	CAS no.
1	2-aminoethanol	141-43-5
	<b>ACGIH Threshold Limit Values</b>	
	Ethanolamine	
	STEL	6 ppm
	TWA	3 ppm
	<b>OSHA Permissible Exposure Limits (PELS)</b>	
	Ethanolamine	
	TWA	6 mg/m <sup>3</sup> 3 ppm
2	2,2',2''-nitrioltriethanol	102-71-6
	<b>ACGIH Threshold Limit Values</b>	
	Triethanolamine	
	TWA	5 mg/m <sup>3</sup>
3	sodium hydroxide	1310-73-2
	<b>ACGIH Threshold Limit Values</b>	
	Sodium hydroxide	
	STEL	C 2 mg/m <sup>3</sup>
	<b>OSHA Permissible Exposure Limits (PELS)</b>	
	Sodium hydroxide	
	TWA	2 mg/m <sup>3</sup>

**8.2 Exposure controls****Appropriate engineering controls**

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the PEL (=Permissible Exposure Limit), suitable respiratory protection must be worn.

**Individual protection measures, such as personal protective equipment****Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified. Respiratory

**Trade name:** Multi Star N**Product no.:** 248999**Current version :** 1.0.1, issued: 06.10.2021**Replaced version:** 1.0.0, issued: 18.05.2021**Region:** USA

protection mask with combination filter A/P2.

**Eye / face protection**

Tightly fitting safety glasses

**Hand protection**

Sufficient protection is given wearing suitable protective gloves in the event of risk of skin contact with the product. Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material	butyl rubber		
Material thickness	>	0.7	mm
Breakthrough time	>	120	min

**Other protection measures**

Chemical-resistant work clothes.

**SECTION 9: Physical and chemical properties**

<b>Form/Color</b>			
liquid			
green			
<b>Odor</b>			
characteristic			
<b>Odor threshold</b>			
No data available			
<b>pH value</b>			
Value		13	
<b>Boiling point / boiling range</b>			
No data available			
<b>Melting point / melting range</b>			
No data available			
<b>Decomposition point / decomposition range</b>			
No data available			
<b>Flash point</b>			
No data available			
<b>Auto-ignition temperature</b>			
No data available			
<b>Oxidising properties</b>			
No data available			
<b>Explosive properties</b>			
No data available			
<b>Flammability</b>			
No data available			
<b>Lower flammability or explosive limits</b>			
No data available			
<b>Upper flammability or explosive limits</b>			
No data available			
<b>Vapor pressure</b>			
No data available			
<b>Vapor density</b>			
No data available			
<b>Evaporation rate</b>			
No data available			
<b>Relative density</b>			
No data available			
<b>Density</b>			
Value		1.1	g/cm <sup>3</sup>
Reference temperature		20	°C

Trade name: Multi Star N

Product no.: 248999

Current version : 1.0.1, issued: 06.10.2021

Replaced version: 1.0.0, issued: 18.05.2021

Region: USA

Solubility in water	
Remarks	miscible

Solubility(ies)	
No data available	

Partition coefficient: n-octanol/water	
No data available	

Viscosity	
No data available	

**Other information**

Other information	
No data available.	

**SECTION 10: Stability and reactivity****10.1 Reactivity**

Stable at ambient temperature.

**10.2 Chemical stability**

Stable under recommended storage and handling conditions(See section 7).

**10.3 Possibility of hazardous reactions**

Dangerous reactions are not to be expected when handling product according to its intended use.

**10.4 Conditions to avoid**

None, if handled according to intended use.

**10.5 Incompatible materials**

strong acids; strong oxidising agents

**10.6 Hazardous decomposition products**

None, if handled according to intended use.

**SECTION 11: Toxicological information****Information on toxicological effects**

Acute oral toxicity (result of the ATE calculation for the mixture)	
Remarks	The result of the applied additivity formula according to CFR (Code of Federal Regulations), Title 29, §1910.1200 "Hazard Communication", section A.1.3 is outside the values that imply a classification / labelling of this mixture according to table A.1.1 defining the respective categories (ATE oral > 2000 mg/kg).

Acute oral toxicity			
No	Substance name	CAS no.	
1	2-aminoethanol	141-43-5	
LD50		1515	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		

Acute dermal toxicity (result of the ATE calculation for the mixture)	
Remarks	The result of the applied additivity formula according to CFR (Code of Federal Regulations), Title 29, §1910.1200 "Hazard Communication", section A.1.3 is outside the values that imply a classification / labelling of this mixture according to table A.1.1 defining the respective categories (ATE dermal > 2000 mg/kg).

Acute dermal toxicity			
No	Substance name	CAS no.	
1	2-aminoethanol	141-43-5	
LD50		2504	mg/kg bodyweight
Species	rabbit		
Method	OECD 402		
Source	ECHA		

Acute inhalational toxicity (result of the ATE calculation for the mixture)	
Remarks	The result of the applied additivity formula according to CFR (Code of Federal Regulations), Title 29, §1910.1200 "Hazard Communication", section A.1.3 is

Trade name: Multi Star N

Product no.: 248999

Current version : 1.0.1, issued: 06.10.2021

Replaced version: 1.0.0, issued: 18.05.2021

Region: USA

	outside the values that imply a classification / labelling of this mixture according to table A.1.1 defining the respective categories ( (ATE for inhalation: > 20.000 ppmV (gases), > 20 mg/l (vapours), > 5 mg/l (dusts/mists).
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Acute inhalational toxicity			
No	Substance name	CAS no.	
1	2-aminoethanol	141-43-5	
LC50	>	1.3	mg/l
Duration of exposure		4	h
State of aggregation	Vapor		
Species	rat		
Source	ECHA		

Skin corrosion/irritation			
No	Substance name	CAS no.	
1	2-aminoethanol	141-43-5	
Method	OECD 404		
Evaluation	corrosive		
Species	rabbit		
Source	ECHA		

Serious eye damage/irritation			
No	Substance name	CAS no.	
1	2-aminoethanol	141-43-5	
Method	OECD 405		
Evaluation	corrosive		
Species	rabbit		
Source	ECHA		

Respiratory or skin sensitisation			
No data available			

Germ cell mutagenicity			
No data available			

Reproduction toxicity			
No data available			

Carcinogenicity			
No data available			

NTP Report on Carcinogens (RoC)			
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) listed "known" (to be a human carcinogen) or "RAHC" (reasonably anticipated to be a human carcinogen).			

OSHA Standards listing cancer as a health effect (Table VII.6.2)			
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) listed as carcinogenic.			

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans			
The product contains following substance(s) classified by the IARC Monographs			
No	Substance name	CAS no.	Group
1	2,2',2"-nitrioltriethanol	102-71-6	3

STOT - single exposure			
No	Substance name	CAS no.	
1	2-aminoethanol	141-43-5	
Target organ	respiratory tract		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are met.		

STOT - repeated exposure			
No data available			

Aspiration hazard			
No data available			

## SECTION 12: Ecological information

## 12.1 Toxicity

Toxicity to fish (acute)			

Trade name: Multi Star N

Product no.: 248999

Current version : 1.0.1, issued: 06.10.2021

Replaced version: 1.0.0, issued: 18.05.2021

Region: USA

No data available

**Toxicity to fish (chronic)**

No data available

**Toxicity to Daphnia (acute)**

No	Substance name	CAS no.
1	2-aminoethanol	141-43-5
Duration of exposure		65
EC50		48
Method	EU Method C.2	
Duration of exposure		h
Source	ECHA	mg/l
Species	Daphnia magna	

**Toxicity to Daphnia (chronic)**

No data available

**Toxicity to algae (acute)**

No	Substance name	CAS no.
1	2-aminoethanol	141-43-5
Duration of exposure		2.8
ErC50		72
Species	Desmodesmus subspicatus	
Duration of exposure		h
Source	ECHA	mg/l

**Toxicity to algae (chronic)**

No data available

**12.2 Persistence and degradability**

Biodegradability		
No	Substance name	CAS no.
1	2-aminoethanol	141-43-5
Value		90
Duration		4
Value		%
Evaluation	readily biodegradable	
Method	OECD 301 A	
Duration		day(s)
Source	ECHA	

**12.3 Bioaccumulative potential**

No data available.

**12.4 Mobility in soil**

No data available.

**12.5 Other adverse effects**

No data available.

**12.6 Other information**

Other information
Do not discharge product unmonitored into the environment.

**SECTION 13: Disposal considerations****13.1 Disposal considerations****Product**

Dispose in accordance with federal, state and local regulations.

**Packaging**

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in accordance with federal, state and local regulations.

**SECTION 14: Transport information**

Trade name: Multi Star N

Product no.: 248999

Current version : 1.0.1, issued: 06.10.2021

Replaced version: 1.0.0, issued: 18.05.2021

Region: USA

**14.1 US DOT (Department of Transportation)**

The product is not subject to DOT regulations.

**14.2 Transport IMDG**

The product is not subject to IMDG regulations.

**14.3 Transport ICAO-TI / IATA**

The product is not subject to ICAO-TI / IATA regulations.

**14.4 Other information**

No data available.

**14.5 Environmental hazards**

Information on environmental hazards, if relevant, pls. see 14.1 - 14.3.

**14.6 Special precautions for user**

No data available.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not relevant

**SECTION 15: Regulatory information****15.1 US Federal Regulations****Toxic Substances Control Act (TSCA)**

According to the data available and/or specifications supplied by upstream suppliers, all components of this product are on the TSCA Inventory or are exempted from notification requirements.

**CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)**

The product contains following substance(s) that are considered being subject to Table 302.4 "List of Hazardous Substances and Reportable Quantities"

No	Substance name	CAS no.
1	sodium hydroxide	1310-73-2

**Clean Air Act (CAA): Hazardous Air Pollutants (HAPS)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) that are considered being "Hazardous Air Pollutants".

**Clean Water Act (CWA) Section 307 (Toxic Pollutants) and Section 311 (Hazardous Substances)**

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	sodium hydroxide	1310-73-2

**EPCRA SARA Section 313, Toxic Chemical Release Inventory**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) that are considered being subject to "SARA Reporting".

**Emergency Planning & Community Right-to-Know Act (EPCRA) - Sections 302 and 304**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) that are considered being subject to reporting requirements.

**Clean Air Act (CAA) - Section 602 Ozone depleting substances**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) listed as ozone depleting substance.

**15.2 US State Regulations****Pennsylvania State Right to Know Hazardous Substance List**

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	2,2',2"-nitrioltriethanol	102-71-6
2	2-aminoethanol	141-43-5
3	sodium hydroxide	1310-73-2

**New Jersey State Right to Know Hazardous Substance List**

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	2,2',2"-nitrioltriethanol	102-71-6
2	2-aminoethanol	141-43-5
3	sodium hydroxide	1310-73-2

**Massachusetts State Right to Know Hazardous Substance List**



**Trade name:** Multi Star N**Product no.:** 248999**Current version :** 1.0.1, issued: 06.10.2021**Replaced version:** 1.0.0, issued: 18.05.2021**Region:** USA

The product contains following substance(s) that are considered to be "Hazardous Substances".		
No	Substance name	CAS no.
1	2-aminoethanol	141-43-5
2	sodium hydroxide	1310-73-2

California Code of Regulations Title 8 §339, Hazardous Substances List
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) that are considered to be "Hazardous Substances".

Right to Know - California State - Proposition 65
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) that are considered to be "Hazardous Substances".

**SECTION 16: Other information, including date of preparation or last revision****16.1 Other information**

No data available.

**16.2 Date of preparation/revision of the SDS**

Current version	1.0.1	06.10.2021
Replaced version	1.0.0	18.05.2021

**16.3 Department issuing safety data sheet**

UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

**16.4 Conclusions**

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not, however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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Prod-ID 765349

**16.5 Key / Legend**

ACGIH - American Conference of Governmental Industrial Hygienists  
 ATE – Acute Toxicity Estimate  
 BOD - Biochemical Oxygen Demand  
 CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania  
 CAS - Chemical Abstracts Service  
 CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act  
 CFR - Code of Federal Regulations (US)  
 CLP - Classification, Labelling, and Packaging  
 DOT - Department of Transportation Commission  
 ECHA – European Chemicals Agency  
 EC / EL – Effective Concentration / Effective Loading  
 EPA - Environmental Protection Agency  
 IARC - International Agency for Research on Cancer  
 IATA - International Air Transport Association  
 IBC – Intermediate Bulk Container  
 ICAO - International Civil Aviation Organization  
 IDL - Ingredient Disclosure List  
 IDLH - Immediately Dangerous to Life and Health  
 IMDG - International Maritime Dangerous Goods  
 IUCLID - International Uniform Chemical Information Database  
 Kow - Octanol/water partition coefficient  
 LD/LC - Lethal Dose/ Lethal Concentration  
 MARPOL – Marine Pollution  
 MEL - Maximum Exposure Limits  
 NFPA - National Fire Protection Agency  
 NIOSH - National Institute for Occupational Safety and Health  
 NJTSR - New Jersey Trade Secret Registry  
 NOEL/NOEC – No Observed Effect Level / No Observed Effect Concentration  
 NTP - National Toxicology Program  
 OSHA - Occupational Safety and Health Administration  
 PEL- Permissible Exposure Limit  
 RCRA - Resource Conservation and Recovery Act

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**Trade name:** Multi Star N

**Product no.:** 248999

**Current version :** 1.0.1, issued: 06.10.2021

**Replaced version:** 1.0.0, issued: 18.05.2021

**Region:** USA

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SARA - Superfund Amendments and Reauthorization Act

STEL - Short-term Exposure Limit

STOT – Specific Target Organ Toxicity

TDG - Transportation of Dangerous Goods

TLV - Threshold Limit Value

TSCA - Toxic Substances Control Act

TWA - Time Weighted Average

UN/NA - United Nations /North American

US - United States

VLE - Exposure Limit Value (Mexico)

VOC – Volatile Organic Compounds