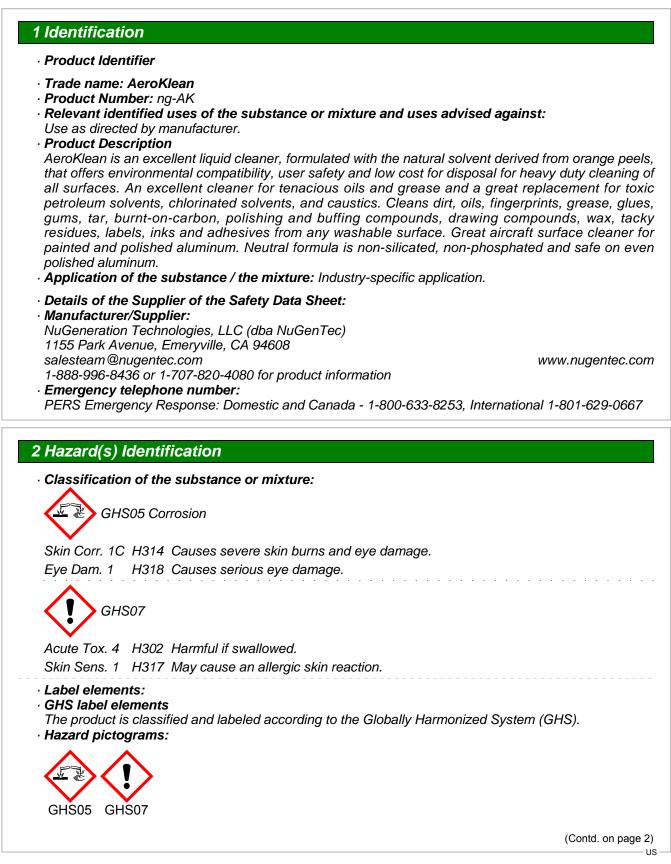


OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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Safety Data Sheet (SDS) OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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Trade name: AeroKlean			
· Signal word: D	· Signal word: Danger		
· Hazard-determ	· Hazard-determining components of labeling:		
Proprietary Sol	Proprietary Solvent		
Proprietary Sur	factant		
	Proprietary Solvent		
Monoethanolan	nine		
 Hazard statem 	ients:		
H302 Harmful i	f swallowed.		
	H314 Causes severe skin burns and eye damage.		
	se an allergic skin reaction.		
 Precautionary 			
P260	Do not breathe dusts or mists.		
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.		
P280	Wear protective gloves.		
P280	Wear eye protection / face protection.		
P264	Wash thoroughly after handling.		
P270	Do not eat, drink or smoke when using this product.		
P272	Contaminated work clothing must not be allowed out of the workplace.		
P303+P361+P3	353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.		
P305+P351+P3	338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses,		
	if present and easy to do. Continue rinsing.		
P310	Immediately call a POISON CENTER/doctor.		
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.		
P321	Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).		
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.		
P363	Wash contaminated clothing before reuse.		
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.		
	331 If swallowed: Rinse mouth. Do NOT induce vomiting.		
P302+P352	IF ON SKIN: Wash with plenty of water.		
P405	Store locked up.		
P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.		
· Unknown acut			
This value refer	rs to knowledge of known, established toxicological or ecotoxicological values.		
17 % of the mix	ture consists of component(s) of unknown toxicity.		
· Classification	system: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme		
· NFPA ratings (
<u> </u>			
	ealth = 2		
	re = 1		
\checkmark \checkmark Re	eactivity = 0		

· HMIS-ratings (scale 0 - 4)

HEALTH 2 Health = 2FIRE 1 Fire = 1Reactivity = 0 REACTIVITY 0

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· Hazard(s) not otherwise classified (HNOC): None known

3 Composition/Information on Ingredients

· Chemical characterization: Mixtures

· Description: Mixture of substances listed below with non-hazardous additions.

· Dangerous Components:

	Proprietary Solvent	15%	
	♦ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ♦ Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227		
	Proprietary Surfactant	12%	
	Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320 Proprietary Solvent	8%	
	Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Flam. Liq. 4, H227		
	Proprietary Surfactant	6%	
	♦ Aquatic Chronic 2, H411; ♦ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Acute 2, H401		
	Proprietary Surfactant	5%	
	Met. Corr.1, H290; Skin Corr. 1C, H314; Eye Dam. 1, H318; () Acute Tox. 4, H302		
CAS: 141-43-5	Monoethanolamine	2-12%	
RTECS: KJ 5775000	♦ Skin Corr. 1B, H314; (1) Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Flam. Liq. 4, H227		
	Proprietary Hydrotrope	2%	
	🚸 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335		
	Proprietary Surfactant	1.4%	
	Acute Tox. 4, H302; Acute Tox. 4, H312; Eye Irrit. 2A, H319		

· Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

- · Description of first aid measures:
- · After inhalation:

Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly. If skin irritation or a rash occurs, consult a doctor.

· After eye contact:

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention. • After swallowing:

Rinse out mouth and then drink plenty of water.

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Do not induce vomiting without medical advice. If vomiting does occur, repeat fluid administration Seek immediate medical advice.

- · Information for doctor:
- *Most important symptoms and effects, both acute and delayed:* No further relevant information available.
- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-Fighting Measures

- · Extinguishing media:
- · Suitable extinguishing agents:
- CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture: No further relevant information available.
- · Advice for firefighters:
- · Protective equipment:

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

· Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Keep people at a distance and stay upwind. Keep away from ignition sources Avoid contact with skin, eyes and clothing. Treat any fumes as toxic.

• Environmental precautions: Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.

 Methods and material for containment and cleaning up: Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13. Ensure adequate ventilation. Dispose of the collected material according to regulations.

Reference to other sections:
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

7 Handling and Storage

- · Handling
- · Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

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Prevent formation of aerosols.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities:
- Store away from strong acids, strong bases, strong oxidizing agents and strong reducing agents. • **Storage**
- · Sloraye
- Requirements to be met by storerooms and receptacles: Store in the original container.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s): No further relevant information available.

8 Exposure Controls/Personal Protection

· Additional information about design of technical systems: No further data; see section 7.

· Control parameters:

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

• **Components with occupational exposure limits:** The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

	rietary Solvent
TWA	Short-term value: 10 mg/m ³
Prop	rietary Solvent
PEL	Long-term value: 240 mg/m³, 50 ppm Skin
REL	Long-term value: 24 mg/m³, 5 ppm Skin
TLV	Long-term value: 97 mg/m³, 20 ppm BEI
141-4	3-5 Monoethanolamine
PEL	Long-term value: 6 mg/m³, 3 ppm
REL	Short-term value: 15 mg/m³, 6 ppm Long-term value: 8 mg/m³, 3 ppm
TLV	Short-term value: 15 mg/m³, 6 ppm Long-term value: 7.5 mg/m³, 3 ppm
Ingre	dients with biological limit values:
Prop	rietary Solvent
	200 mg/g creatinine urine and of shift Butoxyacetic acid with hydrolysis
Addi	tional information: The lists that were valid during the creation of this SDS were used as basis. (Contd. on page



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- · Exposure controls:
- · Personal protective equipment:
- · General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing and wash before reuse.
- Wash hands before breaks and at the end of work.
- · Breathing equipment: Not necessary if room is well-ventilated.
- · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

· Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material:

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· Eye protection:



Goggles recommended during refilling.

· Body protection:



Protective work clothing

Information on basic physical a General Information	nd chemical properties	
Appearance: Form:	Liquid	
Color:	Yellow	
Odor:	Citrus	
Odor threshold:	Not determined.	
pH-value @ 20 °C (68 °F):	10.4	



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• Change in condition Melting point/Melting range:	
Boiling point/Boiling range:	100 °C (212 °F)
· Flash point:	>93 °C (>199 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	240 °C (464 °F)
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits: Lower: Upper:	0.7 Vol % 6.1 Vol %
Vapor pressure @ 20 °C (68 °F):	23 hPa (17 mm Hg)
Density @ 20 °C (68 °F): Relative density: Vapor density: Evaporation rate:	1.02 g/cm ³ (8.512 lbs/gal) Not determined. Not determined. Not determined.
Solubility in / Miscibility with: Water:	Fully miscible.
Partition coefficient (n-octanol/wate	er): Not determined.
· Viscosity: Dynamic @ 20 °C (68 °F): Kinematic:	1 mPas Not determined.
Solvent content: Organic solvents: Water: VOC content:	27.5 % 46.1 % 27.5 %
Solids content: • Other information:	14.0 % No further relevant information available.

10 Stability and Reactivity

- · Reactivity: No further relevant information available.
- · Chemical stability: Stable under normal conditions.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions: No dangerous reactions known.
- · Conditions to avoid: No further relevant information available.
- · Incompatible materials:

Strong acids, strong bases, strong oxidizing agents and strong reducing agents.

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· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological Information

· Information on toxicological effects:

· Acute toxicity:

Proprieta	ary Solvent	t
Oral	LD50	4400 mg/kg (rat) Remarks: Behavioral: Change in motor activity (specific assay). Respirator disorder Skin and Appendages: Other: Hair
Dermal	LD50	>5000 mg/kg (rabbit)
Proprieta	ry Solvent	t
Oral	LD50	470 mg/kg (rat)
Dermal	LD50	220 mg/kg (rab)
Inhalative	LC50/4 h	2174.91 mg/l (rat)
Proprieta	ry Surfact	ant
Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
141-43-5	Monoetha	nolamine
Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	1000 mg/kg (rabbit)
Proprieta	ny Hydroti	rope
Oral	LD50	>7.200 mg/kg (rat)
Dermal	LD50	>2.000 mg/kg (rabbit)
On the ey Sensitiza Additiona	ye: Causes htion: Sens al toxicolog uct shows	ause an allergic skin reaction. s serious eye irritation. itization possible through skin contact. gical information: the following dangers according to internally approved calculation methods
Irritant		
Carcinog IARC (Int Group 1 - Group 2A Group 2B Group 3 -	Carcinoge - Probably - Possibly Not classif	pories: Agency for Research on Cancer): nic to humans carcinogenic to humans carcinogenic to humans fiable as to its carcinogenicity to humans not carcinogenic to humans
Carcinog IARC (Int Group 1 - Group 2A Group 2B Group 3 - Group 4 -	ternational Carcinoge - Probably - Possibly Not classif	Agency for Research on Cancer): nic to humans carcinogenic to humans carcinogenic to humans fiable as to its carcinogenicity to humans
Carcinog IARC (Int Group 1 - Group 2A Group 2B Group 3 - Group 4 - Proprieta	ernational Carcinoge - Probably - Possibly Not classif Probably r	Agency for Research on Cancer): nic to humans carcinogenic to humans carcinogenic to humans fiable as to its carcinogenicity to humans



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· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

12 Ecological Information

- · Toxicity:
- · Aquatic toxicity:
- **Proprietary Solvent**

EC50 0.36 mg/l (daphnia) (OECD Test Guideline 202)

Proprietary Solvent

EC50 1815 mg/l (Water flea)

- · Persistence and degradability: No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential: No further relevant information available.
- · Mobility in soil: No further relevant information available.
- Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

Poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · Results of PBT and vPvB assessment:
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects: No further relevant information available.

13 Disposal Considerations

- · Waste treatment methods:
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Observe all federal, state and local environmental regulations when disposing of this material.

- · Uncleaned packagings
- **Recommendation:** Disposal must be made according to official regulations. Dispose of as unused product.
- · **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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Trade name: AeroKlean

UN-Number:	
DOT, ADR, ADN, IMDG, IATA	Non-Regulated Material
UN proper shipping name: DOT, ADN, IMDG, IATA	Non-Regulated Material
Transport hazard class(es):	
DOT, ADR, ADN, IMDG, IATA Class:	Non-Regulated Material
Packing group: DOT, ADR, IMDG, IATA	Non-Regulated Material
Environmental hazards:	Not applicable.
Special precautions for user:	Not applicable.
Transport in bulk according to Annex I MARPOL73/78 and the IBC Code:	ll of Not applicable.
UN "Model Regulation":	Non-Regulated Material

15 Regulatory Information

• Safety, health and environmental regulations/legislation specific for the substance or mixture: • SARA (Superfund Amendments and Reauthorization):

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

Proprietary Solvent

· TSCA (Toxic Substances Control Act):

All ingredients are listed or exempt from listing.

- · California Proposition 65:
- · Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· New Jersey Right-to-Know List:

Proprietary Solvent

141-43-5 Monoethanolamine

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CA, F2 CO, F2

NL

A3

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· New Jersey Special Hazardous Substance List:	
Proprietary Solvent	

141-43-5 Monoethanolamine

· Pennsylvania Right-to-Know List:

Proprietary Solvent 141-43-5 Monoethanolamine

· Pennsylvania Special Hazardous Substance List:

None of the ingredients are listed.

· Carcinogenic categories:

· EPA (Environmental Protection Agency):

Proprietary Solvent

· TLV (Threshold Limit Value established by ACGIH):

Proprietary Solvent

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms:



· Signal word: Danger

 Hazard-determining components of labeling: Proprietary Solvent Proprietary Surfactant Proprietary Solvent Monoethanolamine

· Hazard statements:

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

- · Precautionary statements:
- P260 Do not breathe dusts or mists.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P280 Wear protective gloves.
- P280 Wear eye protection / face protection.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing must not be allowed out of the workplace.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Trade name: AeroKlean

Immediately call a POISON CENTER/doctor.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If swallowed: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of water.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/ international regulations.

National regulations:

The product is subject to be classified according with the latest version of the regulations on hazardous substances.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· Date of preparation / last revision: 09/06/2016 / -

· Abbreviations and acronyms:

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit BEI: Biological Exposure Limit Flam. Liq. 4: Flammable liquids - Category 4 Met. Corr.1: Corrosive to metals - Category 1 Acute Tox. 4: Acute toxicity - Category 4 Skin Corr. 1B: Skin corrosion/irritation - Category 1B Skin Corr. 1C: Skin corrosion/irritation - Category 1C Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

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End lots OD Decision and demonstrative instantions OD	
Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B	
Skin Sens. 1: Skin sensitisation – Category 1	
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3	
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1	
Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2	
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1	
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2	
• * Data compared to the previous version altered.	
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