Printing date 01/17/2022 Reviewed on 01/17/2022

1 Identification

· Product identifier

· Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

· Article number: AA1000

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Aqua Solutions, Inc. 6913 Highway 225 DEER PARK, TX 77536 USA 800-256-2586

· Information department:

Technical Coordinator

Sherman Nelson shermann@aquasolutions.org

· Emergency telephone number: Chemtrec: 800-424-9300

Canutec: 613-996-6666



2 Hazard(s) identification

· Classification of the substance or mixture



GHS06 Skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS05

GHS06

- · Signal word Danger
- · Hazard-determining components of labeling:

Nitric Acid

· Hazard statements

Fatal if inhaled.

Causes severe skin burns and eye damage.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

(Contd. on page 2)

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

(Contd. of page 1)

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

[In case of inadequate ventilation] wear respiratory protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

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

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 is urgent (see on this label).

Wash contaminated clothing before reuse.

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

Store locked up.

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

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 3Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Fire = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 7697-37-2	Nitric Acid	3.508%
· Table of Nonhazardous Ingredients		
CAS: 7732-18-5	Water	96.492%
CAS: 7784-27-2	Aluminum Nitrate	0.0001%

4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

(Contd. on page 3)

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

(Contd. of page 2)

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- · 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: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture
- During heating or in case of fire poisonous gases are produced.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 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.

· Protective Action Criteria for Chemicals

· PAC-1:	
CAS: 7697-37-2 Nitric Acid	0.16 ppm
CAS: 7784-27-2 Aluminum Nitrate	83 mg/m³
CAS: 554-13-2 Lithium Carbonate	3.1 mg/m^3
CAS: 13477-34-4 Calcium Nitrate Tetrahydrate	12 mg/m^3
CAS: 6156-78-1 Manganese Acetate Tetrahydrate	13 mg/m^3
CAS: 10196-18-6 Zinc Nitrate, Reagent Grade	27 mg/m^3
CAS: 19004-19-4 Cupric Nitrate Hydrate	$42 mg/m^3$
CAS: 1314-62-1 Vanadium Pentoxide Reagent	0.64 mg/m^3
CAS: 7761-88-8 Silver Nitrate	$0.047 \ mg/m^3$
CAS: 10022-31-8 Barium Nitrate	$2.9 \ mg/m^3$
CAS: 10099-74-8 Lead Nitrate	$0.24 \ mg/m^3$
CAS: 7439-89-6	$3.2 \ mg/m^3$

US

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO $_3$

CAS: 7439-95-4	Magnesium	(Contd. of page 18 mg/m ³
CAS: 7440-02-0	Nickel Metal	4.5 mg/m^3
CAS: 7440-31-5	Tin Metal	$6 mg/m^3$
CAS: 7440-36-0	Antimony Metal	$\frac{0 \text{ mg/m}^3}{1.5 \text{ mg/m}^3}$
CAS: 10022-68-1	·	0.27 mg/m^3
	Ammonium Molybdate Tetrahydrate ACS Grade	2.8 mg/m^3
CAS: 87-69-4	L-Tartaric Acid	$\frac{2.6 \text{ mg/m}}{1.6 \text{ mg/m}^3}$
	Ammonium Hydroxide	61 ppm
	Ammonium 11 yaroxiae	01 ррт
PAC-2:	NY: 1 4 17	124
	Nitric Acid	24 ppm
CAS: 7784-27-2	Aluminum Nitrate	920 mg/n
CAS: 554-13-2	Lithium Carbonate	34 mg/m ³
	Calcium Nitrate Tetrahydrate	130 mg/n
CAS: 6156-78-1	Manganese Acetate Tetrahydrate	22 mg/m ³
	Zinc Nitrate, Reagent Grade	300 mg/n
	Cupric Nitrate Hydrate	150 mg/n
CAS: 1314-62-1	Vanadium Pentoxide Reagent	$7 mg/m^3$
CAS: 7761-88-8	Silver Nitrate	0.9 mg/m
CAS: 10022-31-8	Barium Nitrate	350 mg/n
CAS: 10099-74-8	Lead Nitrate	180 mg/n
CAS: 7439-89-6	Iron Metal	35 mg/m ³
CAS: 7439-95-4	Magnesium	200 mg/n
CAS: 7440-02-0	Nickel Metal	50 mg/m ³
CAS: 7440-31-5	Tin Metal	67 mg/m ³
CAS: 7440-36-0	Antimony Metal	13 mg/m ³
CAS: 10022-68-1	Cadmium Nitrate	2.1 mg/m
CAS: 12054-85-2	Ammonium Molybdate Tetrahydrate ACS Grade	30 mg/m³
CAS: 87-69-4	L-Tartaric Acid	17 mg/m³
CAS: 1336-21-6	Ammonium Hydroxide	330 ррт
<i>PAC-3</i> :		<u> </u>
CAS: 7697-37-2	Nitric Acid	92 ppm
CAS: 7784-27-2	Aluminum Nitrate	5,500 mg/n
CAS: 554-13-2	Lithium Carbonate	210 mg/m^3
	Calcium Nitrate Tetrahydrate	770 mg/m^3
	Manganese Acetate Tetrahydrate	740 mg/m^3
	Zinc Nitrate, Reagent Grade	1,800 mg/n
CAS: 19004-19-4	Cupric Nitrate Hydrate	240 mg/m^3
CAS: 1314-62-1	Vanadium Pentoxide Reagent	70 mg/m ³
CAS: 7761-88-8	Silver Nitrate	5.4 mg/m^3
CAS: 10022-31-8		2,100 mg/n
CAS: 10022-31-8		1,100 mg/n
CAS: 7439-89-6	Iron Metal	$1,100 mg/m^3$

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

		(Contd. of page 4)
CAS: 7439-95-4	Magnesium	$1,200 \text{ mg/m}^3$
CAS: 7440-02-0	Nickel Metal	99 mg/m³
CAS: 7440-31-5	Tin Metal	400 mg/m³
	Antimony Metal	80 mg/m³
CAS: 10022-68-1	Cadmium Nitrate	13 mg/m³
CAS: 12054-85-2	Ammonium Molybdate Tetrahydrate ACS Grade	180 mg/m³
CAS: 87-69-4	L-Tartaric Acid	100 mg/m³
CAS: 1336-21-6	Ammonium Hydroxide	2,300 ppm

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · 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 item 7.
- · Control parameters

· Components with limit values that require monitoring at the workplace:	
CAS: 7697-37-2 Nitric Acid	

PEL Long-term value: 5 mg/m³, 2 ppm REL Short-term value: 10 mg/m³, 4 ppm

Long-term value: 5 mg/m³, 2 ppm

TLV Short-term value: 4 ppm Long-term value: 2 ppm

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

(Contd. on page 6)

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

(Contd. of page 5)

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· 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.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the 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 can not 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 found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic	physical and	chemical	properties
· General Information			

· Appearance:

Form: Liquid

Color: Clear to light colored

Odor: OdorlessOdor threshold: Not determined.

• pH-value at 20 • C (68 • F): <2

 $\cdot \textit{Change in condition}$

· Flash point:

Melting point/Melting range: $0 \, ^{\circ}C \, (32 \, ^{\circ}F)$ Boiling point/Boiling range: $100 \, ^{\circ}C \, (212 \, ^{\circ}F)$

· Flammability (solid, gaseous): Not applicable.

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

• Danger of explosion: Product does not present an explosion hazard.

Not applicable.

· Explosion limits:

Lower: Not determined.

(Contd. on page 7)

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

	(Contd. of pag	e 6
Upper:	Not determined.	
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)	
· Density at 20 °C (68 °F):	1.01403 g/cm³ (8.46208 lbs/gal)	
· Relative density	Not determined.	
· Vapor density	Not determined.	
Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Fully miscible.	
· Partition coefficient (n-octanol/wate	e r): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Solvent content:		
Water:	96.5 %	
VOC content:	0.00 %	
	0.0 g/l / 0.00 lb/gal	
Solids content:	0.0 %	
· Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · 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: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50	values	that are	relevant	for cl	lassification:

ATE (Acute Toxicity Estimate)

Inhalative LC50/4h 1.43 mg/l

CAS: 7697-37-2 Nitric Acid

Inhalative LC50/4h 0.05 mg/l (ATE)

- · Primary irritant effect:
- · on the skin: Strong caustic effect on skin and mucous membranes.
- · on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

· Sensitization: No sensitizing effects known.

(Contd. on page 8)

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

(Contd. of page 7)

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Toxic

Corrosive

Irritant

Very toxic

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
CAS: 1314-62-1	Vanadium Pentoxide Reagent	2 <i>B</i>
CAS: 10099-74-8	Lead Nitrate	2A
CAS: 7440-02-0	Nickel Metal	2B
CAS: 10022-68-1	Cadmium Nitrate	1
· NTP (National To	oxicology Program)	
CAS: 10099-74-8	Lead Nitrate	R
CAS: 7440-02-0	Nickel Metal	R
CAS: 10022-68-1	Cadmium Nitrate	K
· OSHA-Ca (Occupational Safety & Health Administration)		
CAS: 10022-68-1	Cadmium Nitrate	

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 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.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- · 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.

(Contd. on page 9)

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

(Contd. of page 8)

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

UN-Number DOT, IMDG, IATA	UN3264
UN proper shipping name DOT IMDG, IATA	Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid) CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nit Acid)
Transport hazard class(es)	
DOT	
CORROSIVE	
Class	6.1 Toxic substances
Label	8
Class Label	6.1 Toxic substances 8
Packing group	
DOT, IMDG, IATA	II
Environmental hazards:	Not applicable.
Special precautions for user	Warning: Toxic substances
Hazard identification number (Kemler code):	· 68
EMS Number:	F-A,S-B
Segregation groups	Strong acids
Stowage Category Stowage Code	B SW2 Clear of living quarters.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	The approximate.
•	
DOT Quantity limitations	On passenger aircraft/rail: 1 L
<i>Qиани</i> итианоня	On cargo aircraft only: 30 L

(Contd. on page 10)

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

(Contd. of page 9)

· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	100 ml Code: E4 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, II

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara

Nickel Metal

· Section 355 (extra	emely hazardous substances):		
CAS: 7697-37-2	Nitric Acid		
CAS: 1314-62-1	Vanadium Pentoxide Reagent		
· Section 313 (Spec	rific toxic chemical listings):		
CAS: 7697-37-2	Nitric Acid		
CAS: 7784-27-2	Aluminum Nitrate		
CAS: 7789-02-8	Chromium Nitrate Nonahydrate		
CAS: 554-13-2	Lithium Carbonate		
CAS: 13477-34-4	Calcium Nitrate Tetrahydrate		
CAS: 10196-18-6	Zinc Nitrate, Reagent Grade		
CAS: 1314-62-1	Vanadium Pentoxide Reagent		
CAS: 7761-88-8	Silver Nitrate		
CAS: 10022-31-8	Barium Nitrate		
CAS: 10099-74-8	CAS: 10099-74-8 Lead Nitrate		
CAS: 7440-02-0	CAS: 7440-02-0 Nickel Metal		
CAS: 7440-36-0	Antimony Metal		
CAS: 10022-68-1	Cadmium Nitrate		
CAS: 1336-21-6	Ammonium Hydroxide		
· TSCA (Toxic Sub	stances Control Act):		
Water		ACTIVE	
Nitric Acid	Nitric Acid		
Lithium Carbonat	Lithium Carbonate		
Vanadium Pentoxide Reagent		ACTIVE	
Silver Nitrate		ACTIVE	
Barium Nitrate ACT		ACTIVE	
Lead Nitrate	Lead Nitrate ACTIV		
Iron Metal ACTIV			
Magnesium	Magnesium ACTIV.		

(Contd. on page 11)

ACTIVE

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

T. M I		(Contd. of pa
Tin Metal		ACT
Antimony Metal		ACT
L-Tartaric Acid		ACT
Ammonium Hydro		ACT
Hazardous Air Po		
CAS: 10099-74-8		
CAS: 10022-68-1	Cadmium Nitrate	
Proposition 65		
Chemicals known	to cause cancer:	
CAS: 1314-62-1	Vanadium Pentoxide Reagent	
CAS: 10099-74-8	Lead Nitrate	
CAS: 7440-02-0	Nickel Metal	
CAS: 10022-68-1	Cadmium Nitrate	
Chemicals known	to cause reproductive toxicity for females:	
None of the ingred	lients is listed.	
Chemicals known	to cause reproductive toxicity for males:	
None of the ingred	lients is listed.	
Chemicals known	to cause developmental toxicity:	
CAS: 554-13-2 Li	ithium Carbonate	
Carcinogenic cate	egories	
EPA (Environmen	ntal Protection Agency)	
CAS: 10022-31-8	Barium Nitrate	D, CBD(inh), NL(o
CAS: 10099-74-8	Lead Nitrate	B2
TLV (Threshold I	Limit Value)	·
CAS: 1314-62-1	Vanadium Pentoxide Reagent	
CAS: 10022-31-8	Barium Nitrate	
CAS: 10099-74-8	Lead Nitrate	
CAS: 7440-02-0	Nickel Metal	
NIOSH-Ca (Natio	onal Institute for Occupational Safety and Health)	
CAS: 7440-02-0	Nickel Metal	

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS05 GHS06

- · Signal word Danger
- · Hazard-determining components of labeling:

Nitric Acid

· Hazard statements

Fatal if inhaled.

Printing date 01/17/2022 Reviewed on 01/17/2022

Trade name: Multi-Component Mixed AA Std. 10.0 ppm Each in 3.5% HNO₃

(Contd. of page 11)

Causes severe skin burns and eye damage.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

[In case of inadequate ventilation] wear respiratory protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

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

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 is urgent (see on this label).

Wash contaminated clothing before reuse.

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

Store locked up.

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

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environment protection department.
- · Contact:
- · Date of preparation / last revision

Revision 0.0 01-17-2022: Creation date for SDS. STN 01/17/2022 / -

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

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

Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1A: Skin corrosion/irritation - Category 1A

Eye Dam. 1: Serious eye damage/eye irritation - Category 1