

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

## 1 Identification

- **Product identifier**
- **Trade name:** Smokin Al Aluminum Cleaner
- **Product code:** SA
- **Recommended use and restriction on use**
- **Recommended use:** Metal surface treatment
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
T W Pelton & Co  
400 S Peach St.  
Pine Bluff, AR, 71601  
(870) 535-1871
- **Emergency telephone number:**  
ChemTel Inc.  
+1 (800)255-3924, +1 (813)248-0585

## 2 Hazard(s) identification

- **Classification of the substance or mixture**
- Met. Corr.1 H290 May be corrosive to metals.
- Acute Tox. 3 H301 Toxic if swallowed.
- Acute Tox. 2 H310 Fatal in contact with skin.
- Acute Tox. 4 H332 Harmful if inhaled.
- Skin Corr. 1B H314 Causes severe skin burns and eye damage.
- Eye Dam. 1 H318 Causes serious eye damage.

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- **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:**  
hydrofluoric acid  
sulphuric acid  
2-butoxyethanol  
phosphoric acid
- **Hazard statements:**  
H290 May be corrosive to metals.  
H301 Toxic if swallowed.  
H310 Fatal in contact with skin.  
H332 Harmful if inhaled.

(Cont'd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

**Trade name: Smokin Al Aluminum Cleaner**

(Cont'd. of page 1)

H314 Causes severe skin burns and eye damage.

**Precautionary statements:**

- P260 Do not breathe mist/vapors/spray.  
 P264 Wash thoroughly after handling.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P262 Do not get in eyes, on skin, or on clothing.  
 P234 Keep only in original container.  
 P270 Do not eat, drink or smoke when using this product.  
 P271 Use only outdoors or in a well-ventilated area.  
 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.  
 P321 Specific treatment - after skin contact: Rub in Calcium gluconate solution or Calcium gluconate gel immediately.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P311 Call a POISON CENTER/doctor.  
 P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.  
 P390 Absorb spillage to prevent material damage.  
 P361+P364 Take off immediately all contaminated clothing and wash it before reuse.  
 P405 Store locked up.  
 P406 Store in corrosive resistant container with a resistant inner liner.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**
**Components:**

7664-93-9	sulphuric acid ⚠ Met. Corr. 1, H290; Skin Corr. 1A, H314	5-10%
7664-39-3	hydrofluoric acid ⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330 ⚠ Skin Corr. 1A, H314	1-5%
111-76-2	2-butoxyethanol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319 Flam. Liq. 4, H227	1-5%
7664-38-2	phosphoric acid ⚠ Skin Corr. 1B, H314	1-5%
9016-45-9	4-nonylphenyl-polyethylene glycol ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	1-5%

**Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

(Cont'd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

**Trade name: Smokin Al Aluminum Cleaner**

For the wording of the listed Hazard Statements refer to section 16.

(Cont'd. of page 2)

## 4 First-aid measures

- **Description of first aid measures**

- **General information:**

Involve doctor immediately. Symptoms, including pain, following any exposure may be delayed by as much as 24 hours.

Immediately remove any clothing soiled by the product.

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

Take affected persons out into the fresh air.

- **After inhalation:**

Supply fresh air or oxygen; call for doctor.

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

Do not use mouth to mouth or mouth to nose resuscitation.

Use a respiration bag or breathing device.

- **After skin contact:**

Immediately remove any clothing soiled by the product.

Immediately rinse with water.

Rub in Calcium gluconate solution or Calcium gluconate gel immediately.

Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

- **After eye contact:**

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

- **Most important symptoms and effects, both acute and delayed:**

Breathing difficulty

Coughing

Thirst

Cramp

Strong caustic effect on skin and mucous membranes.

- **Danger:**

Danger of gastric perforation.

Danger of impaired breathing.

Danger of circulatory collapse.

Danger of pulmonary edema.

Causes serious eye damage.

Toxic if swallowed.

Fatal in contact with skin.

Harmful if inhaled.

- **Indication of any immediate medical attention and special treatment needed:**

Contains soluble fluorides. Consult literature for specific antidotes.

Monitor circulation, possible shock treatment.

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Later observation for pneumonia and pulmonary edema.

(Cont'd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

**Trade name: Smokin Al Aluminum Cleaner**

If medical advice is needed, have product container or label at hand.

(Cont'd. of page 3)

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** The product is not flammable.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**  
Use respiratory protective device against the effects of fumes/dust/aerosol.  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation.  
Isolate area and prevent access.
- **Environmental precautions:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up:**  
Use limestone to neutralize and absorb spill.  
Send for recovery or disposal in suitable receptacles.
- **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:**  
Prevent formation of aerosols.  
Avoid splashes or spray in enclosed areas.  
Use only in well ventilated areas.
- **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:**  
Store only in the original receptacle.

(Cont'd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

**Trade name: Smokin Al Aluminum Cleaner**

(Cont'd. of page 4)

Provide ventilation for receptacles.  
 Use receptacles with fluoroplastic lining.  
 Unsuitable material for receptacle: aluminium.  
 Unsuitable material for receptacle: glass or ceramic.  
 Unsuitable material for receptacle: steel.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.  
 Do not store together with alkalis (caustic solutions).  
 Store away from metals.

· **Further information about storage conditions:** Keep containers tightly sealed.

· **Specific end use(s):** No relevant information available.

## 8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**7664-39-3 hydrofluoric acid**

PEL (USA)	Long-term value: 3 ppm as F
REL (USA)	Long-term value: 2.5 mg/m <sup>3</sup> , 3 ppm Ceiling limit value: 5* mg/m <sup>3</sup> , 6* ppm *15-min, as F
TLV (USA)	Long-term value: 0.41 mg/m <sup>3</sup> , 0.5 ppm Ceiling limit value: 1.64 mg/m <sup>3</sup> , 2 ppm as F; Skin, BEI
EL (Canada)	Ceiling limit value: 2 ppm
EV (Canada)	Long-term value: 0.5 ppm Ceiling limit value: 2 ppm as F
LMPE (Mexico)	Ceiling limit value: 2 mg/m <sup>3</sup> , 0.5 ppm PIEL, IBE

**7664-93-9 sulphuric acid**

PEL (USA)	Long-term value: 1 mg/m <sup>3</sup>
REL (USA)	Long-term value: 1 mg/m <sup>3</sup>
TLV (USA)	Long-term value: 0.2* mg/m <sup>3</sup> *as thoracic fraction
EL (Canada)	Long-term value: 0.2 mg/m <sup>3</sup> ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.2 mg/m <sup>3</sup>
LMPE (Mexico)	Long-term value: 0.2* mg/m <sup>3</sup> A2; *fracción torácica

(Cont'd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

**Trade name: Smokin Al Aluminum Cleaner**

(Cont'd. of page 5)

**111-76-2 2-butoxyethanol**

PEL (USA)	Long-term value: 240 mg/m <sup>3</sup> , 50 ppm Skin
REL (USA)	Long-term value: 24 mg/m <sup>3</sup> , 5 ppm Skin
TLV (USA)	Long-term value: 97 mg/m <sup>3</sup> , 20 ppm BEI
EL (Canada)	Long-term value: 20 ppm
EV (Canada)	Long-term value: 20 ppm Skin
LMPE (Mexico)	Long-term value: 20 ppm A3, IBE

**7664-38-2 phosphoric acid**

PEL (USA)	Long-term value: 1 mg/m <sup>3</sup>
REL (USA)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
TLV (USA)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
EL (Canada)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
EV (Canada)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
LMPE (Mexico)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>

**Ingredients with biological limit values:**
**7664-39-3 hydrofluoric acid**

BEI (USA)	3 mg/g creatinine Medium: urine Time: prior to shift Parameter: Fluorides (background, nonspecific)
	10 mg/g creatinine Medium: urine Time: end of shift Parameter: Fluorides (background, nonspecific)

**111-76-2 2-butoxyethanol**

BEI (USA)	200 mg/g creatinine Medium: urine Time: end of shift Parameter: Butoxyacetic acid with hydrolysis
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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.

(Cont'd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

**Trade name: Smokin Al Aluminum Cleaner**

(Cont'd. of page 6)

- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Do not inhale gases / fumes / aerosols.
- Avoid contact with the eyes and skin.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Suitable respiratory protective device recommended. Use suitable respiratory protective device when aerosol or mist is formed.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**  
Fluorocarbon rubber (Viton)  
Laminated film gloves.
- **Eye protection:**  
Contact lenses should not be worn.



Safety glasses

- **Body protection:**  
Protective work clothing



Boots



Apron

- **Limitation and supervision of exposure into the environment**  
No relevant information available.

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

- **Appearance:**
    - **Form:** Liquid
    - **Color:** Colorless
  - **Odor:** Acrid
  - **Odor threshold:** Not determined.
- |                                     |                 |
|-------------------------------------|-----------------|
| <b>pH-value:</b>                    | <1.0            |
| <b>Melting point/Melting range:</b> | Not determined. |

(Cont'd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

**Trade name: Smokin Al Aluminum Cleaner**

(Cont'd. of page 7)

· <b>Boiling point/Boiling range:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Auto-ignition temperature:</b>	Not determined.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Oxidizing properties:</b>	Not determined.
· <b>Vapor pressure:</b>	23 hPa (17 mm Hg)
· <b>Density:</b>	Not determined.
· <b>Relative density:</b>	Not determined.
· <b>Vapor density:</b>	Not determined.
· <b>Evaporation rate:</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Easily soluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Other information</b>	No relevant information available.

## 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions:**  
Reacts with alkali (lyes).  
Corrosive action on metals.  
Toxic fumes may be released if heated above the decomposition point.  
Attacks materials containing glass and silicate.
- **Conditions to avoid:** No relevant information available.
- **Incompatible materials:** No relevant information available.
- **Hazardous decomposition products:**  
Danger of toxic fluorine based pyrolysis products.  
Hydrogen fluoride  
Sulfur oxides (SOx)

(Cont'd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

Trade name: Smokin Al Aluminum Cleaner

Phosphorus oxides (e.g. P2O5)

(Cont'd. of page 8)

## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**111-76-2 2-butoxyethanol**

Oral	LD50	1480 mg/kg (rat)
Dermal	LD50	1001-2000 mg/kg (rat) (Estimated)
Inhalative	LC50/4h	450 ppm (rat)

**9016-45-9 4-nonylphenyl-polyethylene glycol**

Oral	LD50	4290 mg/kg (mouse)
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- **Primary irritant effect:**

- **On the skin:** Strong caustic effect on skin and mucous membranes.
- **On the eye:** Strong caustic effect.
- **Sensitization:** Based on available data, the classification criteria are not met.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer):**

111-76-2	2-butoxyethanol	3
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- **NTP (National Toxicology Program):**

7664-93-9	sulphuric acid	K
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- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

- **Probable route(s) of exposure:**

Ingestion.  
Inhalation.  
Eye contact.  
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):**

Fatal in contact with skin.  
Toxic if swallowed.  
Harmful if inhaled.  
Causes severe skin burns and eye damage.

- **Repeated dose toxicity:** No relevant information available.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

(Cont'd. on page 10)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

Trade name: Smokin Al Aluminum Cleaner

(Cont'd. of page 9)

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity**

**9016-45-9 4-nonylphenyl-polyethylene glycol**

LC50 | 1.821 mg/l (daphnia) (48 h)

- **Persistence and degradability** No relevant information available.

- **Bioaccumulative potential:** No relevant information available.

- **Mobility in soil:** No relevant information available.

- **Additional ecological information**

- **General notes:**

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.

- **Other adverse effects:** No relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Dilute concentrate with water and neutralize afterwards with suitable material (lime or chalk). The formed salts are inert and pose little hazard.

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

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- **UN-Number**

- **DOT, ADR, IMDG, IATA**

UN2922

- **UN proper shipping name**

- **DOT**

Corrosive liquids, toxic, n.o.s. (Sulfuric acid, Hydrofluoric acid)

- **ADR**

2922 CORROSIVE LIQUID, TOXIC, N.O.S. (SULPHURIC ACID, HYDROFLUORIC ACID)

- **IMDG**

CORROSIVE LIQUID, TOXIC, N.O.S. (SULPHURIC ACID, HYDROFLUORIC ACID)

(Cont'd. on page 11)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

Trade name: Smokin Al Aluminum Cleaner

(Cont'd. of page 10)

· **IATA** Corrosive liquid, toxic, n.o.s. (Sulfuric acid, Hydrofluoric acid)

· **Transport hazard class(es)**

· **DOT**



· **Class** 8 Corrosive substances  
 · **Label** 8, 6.1

· **ADR**



· **Class** 8 (CT1) Corrosive substances  
 · **Label** 8+6.1

· **IMDG**



· **Class** 8 Corrosive substances  
 · **Label** 8/6.1

· **IATA**



· **Class** 8 Corrosive substances  
 · **Label** 8 (6.1)

· **Packing group**

· **DOT, ADR, IMDG, IATA** II

· **Environmental hazards**

· **Marine pollutant:** No

· **Special precautions for user**

Warning: Corrosive substances

· **Poison inhalation hazard:**

Yes

· **Danger code (Kemler):**

86

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Acids

(Cont'd. on page 12)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

Trade name: Smokin Al Aluminum Cleaner

(Cont'd. of page 11)

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
 · **United States (USA)**  
 · **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 304 (emergency release notification):**

None of the ingredients are listed.

· **Sections 311/312 (hazardous chemical threshold planning quantity in pounds):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

7664-39-3 hydrofluoric acid

7664-93-9 sulphuric acid

· **Section 313 (Specific toxic chemical listings):**

7664-39-3 hydrofluoric acid

7664-93-9 sulphuric acid

111-76-2 2-butoxyethanol

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **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.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency):**

111-76-2 2-butoxyethanol

NL

· **IARC (International Agency for Research on Cancer):**

111-76-2 2-butoxyethanol

3

(Cont'd. on page 13)

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 04/18/2016

Revision: 04/18/2016

**Trade name: Smokin Al Aluminum Cleaner**

(Cont'd. of page 12)

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

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

## 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.

· **Date of preparation / last revision** 04/18/2016 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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, Hazard Category 4

Met. Corr. 1: Corrosive to metals, Hazard Category 1

Acute Tox. 2: Acute toxicity, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 1: Acute toxicity, Hazard Category 1

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

· **Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))

Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sor\\_internet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do))

Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: [www.chemtelinc.com](http://www.chemtelinc.com)