

SAFETY DATA SHEET (SDS)


Section 1. Identification

Product identifier	AFC
Other means of identification	1004; 1020; 1204
Recommended use and restrictions on use	Coil cleaner. 4 L, 20 L and 205 L container.
Initial supplier identifier	Asalco Inc. 44, ch. Des Ursulines, Stanstead, Québec (Canada), J0B 3E0 Telephone 819-876-2211; Fax 819-876-5373; Internet www.asalco.com
Emergency telephone number/restriction on use	Canada – CANUTEC 24 hour number 613-996-6666

Section 2. Hazard identification

Classification of hazardous product (name of the category or subcategory of the hazard class)
Corrosive to metals (Category 1) Acute toxicity inhalation (Category 4) Skin corrosion (Category 1B) Serious eye damage (Category 1) Specific target organ toxicity – Single exposure (Category 3)

Information elements (symbols, signal words, hazard statements and precautionary statements of the category/subcategory)


<p>Danger</p> <p>H290 May be corrosive to metals.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H332 Harmful if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>P234 Keep only in original packaging. P260 Do not breathe dusts or mists. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands/nails/face thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P363 Wash contaminated clothing before reuse. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a doctor. P312 Call a doctor if you feel unwell. P390 Absorb spillage to prevent material-damage. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/container into safe container in accordance with local, regional or national regulations.</p>

Other hazards known	None
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Section 3. Composition/information on ingredients

Chemical name (common name/synonyms)	CAS number or other	Concentration (%)
Phosphoric acid	7664-38-2	5-10
Hydrofluoric acid	7664-39-3	5-10
2-Butoxyethanol	111-76-2	1-5

Section 4. First-aid measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. Have victim drink two glasses of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Call a doctor if you feel unwell.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (15-20 minutes). Wash contaminated clothing before reuse.
Eye contact	IF IN EYES, Rinse cautiously with water for several minutes (15-20). Remove contact lenses, if present and easy to do. Continue rinsing.
Most important symptoms and effects (acute or delayed)	Causes severe skin, respiratory or digestive tract burns and eye damage.
Indication of immediate medical attention/special treatment	In all cases, call a doctor. Do not forget this document.

Section 5. Fire-fighting measures

Specific hazards of the hazardous product (hazardous combustion products)	Carbon oxides and other irritant/toxic gases and fumes.
Suitable and unsuitable extinguishing media	In case of fire: Use carbon dioxide, chemical powder agent and appropriate foam to extinguish surrounding products.
Special protective equipment and precautions for fire-fighters	During a fire, irritating/toxic smoke and fumes may be generated. Do not enter fire area without proper protection. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece. Shield personnel to protect from venting, rupturing or bursting cans. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and cans exposed to heat and flame.

Section 6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures			
Absorb spillage to prevent material-damage. Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment (See Section 8).			
Methods and materials for containment and cleaning up			
Ventilate area of release. Stop the leak if it can be done safely. Contain and absorb any spilled liquid concentrate with inert absorbent material, then place material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.			
Section 7. Handling and storage			
Precautions for safe handling			
May be corrosive to metals. Keep only in original packaging. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection.			
Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Inspect containers for leaks before handling. Label containers appropriately. Ensure proper ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Avoid generating high concentrations of dusts, vapours or mists. Keep away from incompatible materials (Section 10). Keep containers closed when not in use. Empty containers are always dangerous. Refer also to Section 8.			
Conditions for safe storage, including any incompatibilities			
Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials (Section 10). Inspect all incoming containers to make sure they are properly labelled and not damaged. Storage area should be clearly identified, clear of obstruction and accessible only to trained personnel. Inspect periodically for damage or leaks.			
Section 8. Exposure controls/Personal protection			
Control parameters (biological limit values or exposure limit values and source of those values)			
Exposure limits: CAS 7664-39-3 – ACGIH – TLV-TWA 0.5 ppm & PEL-TWA 3 ppm; CAS 7664-38-2 – ACGIH – TLV-TWA 1 mg/m ³ (STEL 3 mg/m ³) & PEL-TWA 1 mg/m ³ ; CAS 111-76-2 – ACGIH – TLV-TWA 20 ppm & PEL-TWA 50 ppm;			
Appropriate engineering controls			
Use under well-ventilated conditions. Local exhaust ventilation system is recommended to maintain concentrations of contaminants below exposure limits. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.			
Individual protection measures/personal protective equipment			
Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirators if the exposure limits are unknown. Chemically protective gloves (impervious), and other protective clothing to prevent prolonged or repeated skin contact, must be worn during all handling operations. Wear protective chemical splash goggles to prevent mists from entering the eyes. Wash hands/nails/face thoroughly after handling. Do not eat, drink or smoke when using this product. Practice good personal hygiene after using this material. Remove and wash contaminated work clothing before re-use.			
Section 9. Physical and chemical properties			
Appearance, physical state/colour	Light blue liquid	Vapour pressure	Not available
Odour	Acid	Vapour density	Heavier than air
Odour threshold	Not available	Relative density	1.0
pH	1-3	Solubility	Soluble
Melting/freezing point	0°C	Partition coefficient - n-octanol/water	Not available
Initial boiling point/range	80°C	Auto-ignition temperature	Not available
Flash point	> 93°C	Decomposition temperature	Not available
Evaporation rate	Not available	Viscosity	Not available
Flammability (solids and gases)	Not available	VOC	Not available
Upper and lower flammability/explosive limits	Not available	Other	None known
Section 10. Stability and reactivity			
Reactivity			
Does not react under the recommended storage and handling conditions prescribed.			
Chemical stability			
Stable under the recommended storage and handling conditions prescribed.			
Possibility of hazardous reactions			
When mixed with incompatible materials.			
Conditions to avoid (static discharge, shock or vibration)			
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.			
Incompatible materials			
Oxidizing materials; bases; etc.			
Hazardous decomposition products			
None known			

Section 11. Toxicological information	
Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)	
Causes severe skin burns and eye damage. Harmful if inhaled. May cause respiratory irritation.	
Symptoms related to the physical, chemical and toxicological characteristics	
Skin burn, redness, stinging, pain; Eye burn, redness, tearing; Digestive tract burn; Respiratory tract burn, coughing, shortness of breath, dizziness, drowsiness, nausea and headaches.	
Delayed and immediate effects (chronic effects from short-term and long-term exposure)	
Skin Sensitization – No data available; Respiratory Sensitization – No data available; Germ Cell Mutagenicity – No data available; Carcinogenicity – No ingredient listed by IARC, ACGIH, NTP or OSHA Reproductive Toxicity – No data available; Specific Target Organ Toxicity — Single Exposure – Possible; Specific Target Organ Toxicity — Repeated Exposure – No data available; Aspiration Hazard – No data available; Health Hazards Not Otherwise Classified – No data available.	
Numerical measures of toxicity (ATE; LD₅₀ & LC₅₀)	
CAS 7664-39-3 LC ₅₀ Inhalation - Rat - 4 h – 655 ppm; CAS 7664-38-2 LD ₅₀ Oral - Rat – 1530 mg/kg; LC ₅₀ Inhalation - Rat - 4 h – no data; LD ₅₀ Dermal - Rabbit – no data; CAS 111-76-2 LD50 (oral, rat) 880 mg/kg & LD50 (dermal, rabbit) 1060 mg/kg; ATE not available in this document.	
Section 12. Ecological information	
Ecotoxicity (aquatic and terrestrial information)	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No bioaccumulation is to be expected.
Mobility in soil	No data available
Other adverse effects	No data available
Section 13. Disposal considerations	
Information on safe handling for disposal/methods of disposal/contaminated packaging	
Dispose of contents/container into safe container in accordance with local, regional or national regulations.	
Section 14. Transport information	
UN number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations	
UN3264; CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROFLUORIC ACID, PHOSPHORIC ACID); CLASSE 8; GE II	
UN number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime)	
UN3264; CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROFLUORIC ACID, PHOSPHORIC ACID); CLASSE 8; GE II	
UN number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air)	
UN3264; CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROFLUORIC ACID, PHOSPHORIC ACID); CLASSE 8; GE II	
Special precautions (transport/conveyance)	May also be shipped as a LIMITED QUANTITY in accordance with TDG.
Environmental hazards (IMDG or other)	None
Bulk transport (usually more than 450 L in capacity)	Possible
Section 15. Regulatory information	
Safety/health Canadian regulations specifics	Refer to Section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).
Environmental Canadian regulations specifics	Refer to Section 3 for ingredient(s) of the DSL
Safety/health/environmental outside regulations specifics	
United States OSHA information: This product is regulated according to OSHA (29 CFR).	
United States EPA (Environmental Protection Agency) information: 40 CFR Refer to the ingredients listed in Section 3 & Sections 12; 13 & 14.	
United States TCSA information: Refer to the ingredients listed in Section 3.	
National Fire Protection Association (NFPA):	
HEALTH: 3 FLAMMABILITY: 1 INSTABILITY: 0 SPECIAL HAZARDS: Refer to Section 2 & 3.	
HAZARD SCALE: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe	

Section 16. Other information

Date of the latest revision of the safety data sheet | February 25, 2016 version 1 (NSS ENTREPRISE INC.)

References | Safety Data Sheets from manufacturer/supplier & from Canadian Centre for Occupational Health and Safety, CCOHS.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
ATE	Acute toxicity estimate
CAS	Chemical Abstract Service
DSL	Domestic Substance List
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
LC	Lethal concentration
LD	Lethal Dosage
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program (U.S.A.)
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit
STEL	Short-term Exposure Limit
TDG	Transport of dangerous goods in Canada
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.