

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture
Product Name: Refinish Plus II
Product Code: AFCO 2301

Intended Use of the Product

Use of the Substance/Mixture: Caustic cleaner/degreaser for removal of fat, grease, and oily soils from food processing equipment. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

AFCO
 800 Development Avenue
 Chambersburg, PA 17201
 T: 800-345-1329

www.afcocare.com

Emergency Telephone Number

Emergency Number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Met. Corr. 1 H290
 Skin Corr. 1C H314
 Eye Dam. 1 H318
 Aquatic Acute 3 H402

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :



GHS05

Signal Word (GHS-US) :

Danger.

Hazard Statements (GHS-US) :

H290 - May be corrosive to metals
 H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H402 - Harmful to aquatic life

Precautionary Statements (GHS-US) :

P234 - Keep only in original container.
 P260 - Do not breathe vapors, mist, spray.
 P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
 P273 - Avoid release to the environment.
 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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338 - 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 or doctor/physician.
 P321 - Specific treatment (see section 4).
 P363 - Wash contaminated clothing before reuse.

Refinish Plus II (AFCO 2301)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P390 - Absorb spillage to prevent material damage.

P405 - Store locked up.

P406 - Store in corrosive resistant container with a resistant inner liner.

P501 - Dispose of contents/container to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes. Corrosive vapors.

Unknown Acute Toxicity (GHS-US): Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	70 - 90	Not classified
Sodium hydroxide	(CAS No) 1310-73-2	5-10	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402
Sodium xylene sulfonate	(CAS No) 1300-72-7	1 – 5	Eye Irrit. 2A, H319
Tetrasodium EDTA	(CAS No) 64-02-8	1 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation: dust, mist), H332 Eye Dam. 1, H318 Aquatic Acute 2, H401
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates	(CAS No) 68130-47-2	1-5	Skin Corr. 1C, H314 Eye Dam. 1, H318
Alcohols, C9-11, ethoxylated	(CAS No) 68439-46-3	1 – 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
2-Propanol, 1-propoxy-	(CAS No) 1569-01-3	1 - 5	Flam Liq 3, H226 Eye Irrit 2A, H319
Imidazolium compounds, 1-[2-(2-carboxyethoxy)ethyl]-1(or 3)-(2-carboxyethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, disodium salts	(CAS No) 68604-71-7	0.1 - 1	Eye Dam. 1, H318
Sodium gluconate	(CAS No) 527-07-1	0.1 - 1	Not classified

Full text of H-phrases: see section 16.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Corrosive. Causes burns. Causes serious eye damage.

Inhalation: None under normal and intended conditions of use.

Skin Contact: Contact may cause immediate severe irritation progressing quickly to chemical burns.

Refinish Plus II (AFCO 2301)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Not available

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: When heated to decomposition, emits toxic fumes. In contact with soft metals, emits flammable/explosive hydrogen gas.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Corrosive vapors. Sodium oxides, phosphorus oxides, sulfur oxides, nitrogen oxides.

Other information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapour or mist.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Absorb and/or contain spill with inert material, then place in suitable container. Cautiously neutralize spilled liquid.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Contact competent authorities after a spill. Cautiously neutralize spilled liquid.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: When heated to decomposition, emits toxic fumes. Corrosive vapors are released. Contact with soft metals may evolve flammable hydrogen gas.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Refinish Plus II (AFCO 2301)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Storage Conditions: Store in a well-ventilated place. Keep container tightly closed. Keep/Store away from extremely low temperatures, incompatible materials.

Incompatible Material: Acids, strong oxidizers.

Specific End Use(s): Caustic cleaner/degreaser for removal of fat, grease, and oily soils from food processing. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Sodium hydroxide (1310-73-2)		
Mexico	OEL Ceiling (mg/m ³)	2 mg/m ³
USA ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	2 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	2 mg/m ³
USA IDLH	US IDLH (mg/m ³)	10 mg/m ³
Ontario	OEL Ceiling (mg/m ³)	2 mg/m ³
Québec	PLAFOND (mg/m ³)	2 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. If user operations generate fumes, vapor, spray, or mist use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment: Protective clothing. Protective goggles. Gloves. Face shield.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: None needed under normal and intended conditions of use.

Thermal Hazard Protection: Wear suitable protective clothing.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid.
Appearance	: Clear, pale yellow.
Odor	: Slight.
Odor Threshold	: Not available.
pH	: >13
Relative Evaporation Rate (butylacetate=1)	: Not available.
Melting Point	: Not available.
Freezing Point	: Not available.
Boiling Point	: 104.4°C (219.92°F)
Flash Point	: None.
Auto-ignition Temperature	: None.
Decomposition Temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower Flammable Limit	: Not available.
Upper Flammable Limit	: Not available.
Vapor Pressure	: Not available.
Relative Vapor Density at 20°C	: Not available.
Specific Gravity	: 1.13

Refinish Plus II (AFCO 2301)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Solubility	: Complete.
Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Not available.
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: When heated to decomposition, emits toxic fumes. In contact with soft metals, emits flammable/explosive hydrogen gas.

Chemical Stability: Stable at standard temperature and pressure.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Extremely low temperatures. Incompatible materials.

Incompatible Materials: Strong oxidizers. Acids.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Corrosive vapors. Sodium oxides, phosphorus oxides, sulfur oxides, nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Causes severe skin burns and eye damage. **pH:** >13

Serious Eye Damage/Irritation: Causes serious eye damage. **pH:** >13

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not available.

Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: None under normal and intended conditions of use.

Symptoms/Injuries After Skin Contact: Contact may cause immediate severe irritation progressing quickly to chemical burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Water (7732-18-5)	
LD50 Oral Rat	>90000 mg/kg
Tetrasodium EDTA (64-02-8)	
LD50 Oral Rat	1780 mg/kg
Alcohols, C9-11, ethoxylated (68439-46-3)	
LD50 Oral Rat	1400 mg/kg
Sodium xylene sulfonate (1300-72-7)	
LD50 Oral Rat	1000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not available.

Sodium hydroxide (1310-73-2)	
LC50 Fish 1	40 mg/l
Tetrasodium EDTA (64-02-8)	
LC50 Fish 1	41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Other Aquatic Organisms 1	1.01 mg/l (Exposure time: 72 h - Species: Desmodemus subspicatus)
LC50 Fish 2	59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Refinish Plus II (AFCO 2301)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Persistence and Degradability

Refinish Plus II (AFCO 2301)	
Persistence and Degradability	Not available.

Bioaccumulative Potential

Refinish Plus II (AFCO 2301)	
Bioaccumulative Potential	Not established.

Mobility in Soil Not available.

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology - Waste Materials: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)
Hazard Class : 8
Identification Number : UN3266
Label Codes : 8
Packing Group : III



14.2 In Accordance with IMDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)
Hazard Class : 8
Identification Number : UN3266
Packing Group : III
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3 In Accordance with IATA

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)
Packing Group : III
Identification Number : UN3266
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



14.4 In Accordance with TDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)
Packing Group : III
Hazard Class : 8
Identification Number : UN3266
Label Codes : 8



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Refinish Plus II (AFCO 2301)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard.
Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	

Refinish Plus II (AFCO 2301)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Sodium hydroxide (1310-73-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates (68130-47-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Sodium xylene sulfonate (1300-72-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Tetrasodium EDTA (64-02-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Sodium gluconate (527-07-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Alcohols, C9-11, ethoxylated (68439-46-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Imidazolium compounds, 1-[2-(2-carboxyethoxy)ethyl]-1(or 3)-(2-carboxyethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, disodium salts (68604-71-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.

US State Regulations

Sodium hydroxide (1310-73-2)
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728) U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New Jersey - Special Health Hazards Substances List U.S. - New York - Occupational Exposure Limits - TWAs U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term
Tetrasodium EDTA (64-02-8)
U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term
Sodium xylene sulfonate (1300-72-7)
U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term
Sodium gluconate (527-07-1)
U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term
Alcohols, C9-11, ethoxylated (68439-46-3)
U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term

Canadian Regulations

Water (7732-18-5)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Sodium hydroxide (1310-73-2)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates (68130-47-2)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Sodium xylene sulfonate (1300-72-7)
Listed on the Canadian DSL (Domestic Substances List) inventory.

Refinish Plus II (AFCO 2301)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Tetrasodium EDTA (64-02-8)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Sodium gluconate (527-07-1)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Alcohols, C9-11, ethoxylated (68439-46-3)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Imidazolium compounds, 1-[2-(2-carboxyethoxy)ethyl]-1(or 3)-(2-carboxyethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, disodium salts (68604-71-7)
Listed on the Canadian DSL (Domestic Substances List) inventory.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

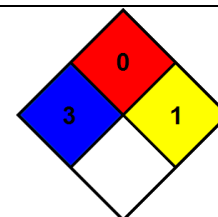
SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 04/17/2023
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Inhalation: vapour)	Acute toxicity (inhalation: vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 3	Flammable liquids Category 3
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1C	Skin corrosion/irritation Category 1C
H226	Flammable liquid and vapour
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H401	Toxic to aquatic life
H402	Harmful to aquatic life

NFPA Health Hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA Fire Hazard : 0 - Materials that will not burn.
NFPA Reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given.
Flammability : 0 - Minimal Hazard.
Physical : 1 - Slight Hazard.

Refinish Plus II (AFCO 2301)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Party Responsible for the Preparation of This Document

AFCO
800 Development Avenue
Chambersburg, PA 17201
T: 800-345-1329

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS SDS 2015 (U.S., Can., Mex.)