

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 1 of 10

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

Applied Chemical Innovations, LLC
 10655 Park Run Dr.
 Suite 130
 Las Vegas, NV 89144

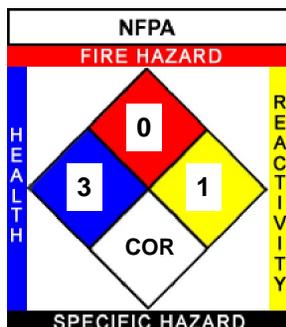
Contact: Applied Chemical Innovations, LLC
Phone: +1-702-816-0915
Email: chet.vo@aci-chem.com

Product Name: ACI-Pride, Heavy Soil
Revision Date: 2/7/2015
Version: 1
SDS Number: 135
Common Name: Strong Alkaline Cleaner
CAS Number: MIXTURE
Product Code: ACI-1
Chemical Family: Strong Alkaline Cleaner
Chemical Formula: *** PROPRIETARY ***
Product Use: Cleaner for Heavily Soiled Substrates
Emergency Phone: +1-702-816-0915

2 HAZARDS IDENTIFICATION

NFPA:
 HMIS III:

Health = 3, Fire = 0, Reactivity = 1
 H*3/F0/PH1



HMIS III	
HEALTH	<input checked="" type="checkbox"/> 3
FLAMMABILITY	0
PHYSICAL HAZARDS	1
PERSONAL PROTECTION F Safety Glasses, Gloves, Apron, Dust Respirator	

PERSONAL PROTECTION INDEX			
A		G	
B		H	
C		I	
D		J	
E		K	
F		X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions
A	n	o	p
q	r	s	
t	u	w	y
z	Additional information		

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 2 of 10

GHS Signal Word:

DANGER

GHS Hazard Pictograms:



GHS Classifications:

- Physical, Corrosive to Metals, 1
- Health, Acute toxicity, 4 Oral
- Health, Skin corrosion/irritation, 1 A
- Health, Specific target organ toxicity - Single exposure, 3
- Environmental, Hazards to the aquatic environment - Chronic, 2

GHS Phrases:

- H290 - May be corrosive to metals
- H302 - Harmful if swallowed
- H314 - Causes severe skin burns and eye damage
- H335 - May cause respiratory irritation
- H411 - Toxic to aquatic life with long lasting effects

GHS Precautionary Statements:

- P234 - Keep only in original container.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P262 - Do not get in eyes, on skin, or on clothing.
- P264 - Wash skin thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P321 - Specific treatment (see supplementary first aid instructions on this label).
- P332+313 - If skin irritation occurs: Get medical advice/attention.
- P337+313 - If eye irritation persists: Get medical advice/attention.
- P363 - Wash contaminated clothing before reuse.
- P391 - Collect spillage. Hazardous to the aquatic environment.
- P403+233 - Store in a well ventilated place. Keep container tightly closed.
- P405 - Store locked up.
- P501 - Dispose of contents/container to an approved waste disposal plant.

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 3 of 10

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
1310-73-2	30-40%	Sodium hydroxide, solid
497-19-8	20-30%	Carbonic acid disodium salt
6834-92-0	5-15%	Silicic acid (H ₂ SiO ₃), disodium salt
7758-29-4	<10%	Triphosphoric acid, pentasodium salt
9016-45-9	<10%	Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-
25155-30-0	<2%	Benzenesulfonic acid, dodecyl-, sodium salt
N/A	<5%	Proprietary, non-hazardous, non-regulated

4 FIRST AID MEASURES

- Inhalation:** Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- Skin Contact:** Take off contaminated clothing and shoes immediately. Wipe/brush off as much chemical as possible from skin BEFORE flushing skin with water (water will react exothermically with large amounts of residual dry chemical, potentially causing more severe burns). Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening develops and/or persists, obtain medical attention.
- Eye Contact:** Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get immediate medical attention. Continue rinsing eyes during transport to hospital.
- Ingestion:** Rinse mouth with water. Give 3-4 glasses of water or milk to dilute stomach contents. Do NOT induce vomiting. If vomiting occurs, give more water or milk. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see Section 2) and/or Section 11.

Indication of any immediate medical attention and special treatment needed:

No data available.

5 FIRE FIGHTING MEASURES

- Flammability:** No data available
- Flash Point:** DNA
- Flash Point Method:** DNA
- Burning Rate:** No data available
- Autoignition Temp:** No data available
- LEL:** DNA
- UEL:** DNA

Extinguishing Media:

Water Spray
Carbon Dioxide
Alcohol-Resistant Foam
Dry Chemical

Special Hazards Arising From the Substance or Mixture:

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 4 of 10

Aldehydes
Carbon Oxides
Hydrocarbon particulate
Nitrogen Oxides (NOx)
Phosphorous Oxides
Silicon Oxides
Sodium Oxides
Sulfur Oxides

Advice for Firefighters:

Firefighters should wear full-face, positive-pressure respirators.

Further Information:

If incinerated, may release toxic fumes.

Use water spray to cool unopened containers.

Gives off Hydrogen by reaction with reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.). Hydrogen is flammable and potentially explosive. Use caution.

See Section 7 for more information on safe handling.

See Section 8 for more information on personal protection equipment.

See Section 13 for disposal information.

6

ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment, including dust respirator.

Avoid dust formation.

Avoid breathing dust.

Keep from contacting skin or eyes.

Avoid breathing vapors, mist or gas.

Ensure adequate ventilation.

Evacuate personnel to safe areas.

Environmental precautions:

Prevent further release (leakage/spillage) if safe to do so.

Do not allow product to enter drains.

Do not allow to drain to environment.

Methods and materials for containments and cleaning up:

Pick up and arrange disposal without creating dust.

Sweep up, shovel or collect spillage with an electrically protected vacuum cleaner.

Place contaminated material into suitable, closed containers for disposal.

Dispose of contaminated material according to Section 13.

After spillage has been collected, area may be flushed with water or wet-brushed.

Ensure adequate ventilation.

Reference to other sections:

Comply with federal, state and local regulations on reporting spills.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on proper disposal.

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 5 of 10

7

HANDLING AND STORAGE

Handling Precautions:

Avoid formation of dust or aerosols.
Avoid breathing vapors, mist or dust.
Avoid contact with eyes, skin, or clothing.
Use approved, original containers only.
Keep containers closed when not in use.
Do not expose containers to open flame, excessive heat, or direct sunlight.
Do not puncture or drop containers.
Handle with care and avoid spillage on the floor.
Keep material out of reach of children.
Keep material away from incompatible materials.
Do not use corrosive-sensitive materials for handling product.
Wash thoroughly after handling.
Ensure adequate ventilation.

Storage Requirements:

Keep away from heat, sparks and flames.
Do not store in direct sunlight.
Store away from strong acids, strong bases, Ammonia, strong reducing agents, strong oxidizing agents, organic materials, water, chlorinated solvents, reactive metals (Zinc & Aluminum) and their alloys (Brass), Alkali metals (Lithium, Sodium, Potassium, etc.), Copper and its alloys, Tin & Tin oxides, Lead, Phosphorous & Phosphorous Pentoxide), Nitro compounds (Nitromethane, etc.), Azides, Anhydrides, Alcohols, Amines and Halogens.

8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

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.

Personal Protective Equip:

Eye/face protection:

When using material use safety glasses, gloves, apron and dust respirator according to HMIS PP, F. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection:

Handle with gloves made from Neoprene, Nitrile or Buna rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

Body Protection:

Chemically resistant gloves, apron, safety glasses and dust respirator are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Respiratory protection:

Full-face dust/vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds.

Control of environmental exposure:

Prevent leakage or spillage if safe to do so. Do not let material enter drains.

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 6 of 10

Components with workplace control parameters:

Component(s): Sodium Hydroxide, solid

CAS No(s): 1310-73-2

USA OSHA Table Z-1 Limits for Air Contaminants (C): 2 mg/m³

USA OSHA Occupational Exposure Limits Table Z-1 Limits for Air Contaminant (TWA): 2 mg/m³

USA ACGIH (C/TLV): 2 mg/m³

USA ACGIH (CEIL/TLV): 2 mg/m³

USA NIOSH Recommended Exposure Limits (C): 2 mg/m³

Biological occupational exposure limits:

Contains no substances with biological occupational exposure limits values.

Derived No Effect Level (DNEL):

Component(s): Sodium Hydroxide, solid

CAS No(s): 1310-73-2

Inhalation - Workers (Long-term local effects): 1 mg/m³

Inhalation - Consumers (Long-term local effects): 1 mg/m³

9

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White, Granular Powder	Odor:	Characteristic
Physical State:	Solid	Molecular Formula:	MIXTURE
Odor Threshold:	Not determined	Solubility:	100%
Particle Size:	No data available	Softening Point:	Not determined
Spec Grav./Density:	DNA	Percent Volatile:	DNA
Viscosity:	Not determined	Heat Value:	Not determined
Sat. Vap. Conc.:	DNA	Freezing/Melting Pt.:	Not determined
Boiling Point:	Not determined	Flash Point:	DNA
Flammability:	(solid, gas): Not determined	Octanol:	Not determined
Partition Coefficient:	Not determined	Vapor Density:	(air = 1): Not determined
Vapor Pressure:	(mm Hg @ 20 °C): DNA	VOC:	DNA
pH:	@ 1%: > 13.5	Bulk Density:	Not determined
Evap. Rate:	DNA	Auto-Ignition Temp:	Not determined
Molecular weight:	MIXTURE	UFL/LFL:	DNA
Decomp Temp:	Not determined		

Percent Phosphorous: 2.02%

10

STABILITY AND REACTIVITY

Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Incompatibilities, flames, ignition sources.
Materials to Avoid:	Strong acids, strong bases, Ammonia, strong reducing agents, strong oxidizing agents, organic materials, water, chlorinated solvents, reactive metals (Zinc & Aluminum) and their alloys (Brass), Alkali metals (Lithium, Sodium, Potassium, etc.), Copper and its alloys, Tin & Tin oxides, Lead, Phosphorous & Phosphorous Pentoxide), Nitro compounds (Nitromethane, etc.), Azides, Anhydrides, Alcohols, Amines and Halogens.
Hazardous Decomposition:	Aldehydes, Carbon Oxides, Hydrocarbon particulate, Nitrogen Oxides (NOx), Phosphorous

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 7 of 10

Oxides, Silicon Oxides, Sodium Oxides and Sulfur Oxides.

Hazardous Polymerization: Will not occur.

11

TOXICOLOGICAL INFORMATION

Component(s): Sodium Hydroxide, solid; Carbonic acid disodium salt; Silicic acid (H₂SiO₃), disodium salt; Triphosphoric acid, pentasodium salt; Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-; Benzenesulfonic acid, dodecyl-, sodium salt

CAS No(s): 1310-73-2; 497-19-8; 6834-92-0; 7758-29-4; 9016-45-9; 25155-30-0

Acute Toxicity:

LD50 Oral - Rat: 438 mg/kg

LDL Oral - Rabbit: 500 mg/l

LD50 Dermal - Rabbit: 1,350 mg/kg

LC50 Inhalation - Rat (4 h): > 0.39 mg/l (4 h)

Skin Corrosion/Irritation: Rabbit skin (4 h) - Corrosive.

Serious Eye Damage/Eye Irritation: Rabbit eyes (24 h) - Corrosive.

Respiratory or Skin Sensitation: Certain reactions were observed for sensitive people.

Germ Cell Mutagenicity: No data available.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity: No data available.

Specific Target Organ Toxicity - Single Exposure: Respiratory system - May cause respiratory irritation.

Specific Target Organ Toxicity - Repeated Exposure: No data available.

Aspiration Hazard: No data available.

Additional Information:

Component: Sodium Hydroxide, solid; RTECS: WB4900000

Component: Carbonic acid disodium salt; RTECS: VZ4050000

Component: Silicic acid (H₂SiO₃), disodium salt; RTECS: VV9287500

Component: Triphosphoric acid, pentasodium salt; RTECS: YK4750000

Component: Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-; RTECS: AX0247000

Component: Benzenesulfonic acid, dodecyl-, sodium salt; RTECS: DB6825000

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 8 of 10

12

ECOLOGICAL INFORMATION

Component(s): Sodium Hydroxide, solid; Carbonic acid disodium salt; Silicic acid (H₂SiO₃), disodium salt; Triphosphoric acid, pentasodium salt; Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-; Benzenesulfonic acid, dodecyl-, sodium salt

CAS No(s): 1310-73-2; 497-19-8; 6834-92-0; 7758-29-4; 9016-45-9; 25155-30-0

Toxicity:

Toxicity to fish:

LC50 - Lepomis macrochirus (Bluegill): 1.0 mg/l (96 h)

LC50 - Oncorhynchus mykiss (Rainbow Trout): 3.2 - 5.6 mg/l (96 h)

Mortality NOEC - Oncorhynchus kisutch: 3.1 mg/l (3 d)

Mortality LOEC - Oncorhynchus kisutch: 5.6 mg/l (3 d)

Mortality NOEC - Pimephales promelas (Fathead Minnow): 1.8 mg/l (144 h)

Mortality LOEC - Pimephales promelas (Fathead Minnow): 2.0 mg/l (144 h)

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water Flea): 12.2- 17.0 mg/l (48 h)

Immobilization EC50 - Daphnia: 40.38 mg/l (48 h)

Mortality NOEC - Daphnia magna (Water Flea): 10.0 mg/l (6 d)

Mortality LOEC - Daphnia magna (Water Flea): 20.0 mg/l (6 d)

Toxicity to algae:

Growth Inhibition NOEC - Pseudokirchneriella subcapitata: 8.0 mg/l (96 h)

Growth Inhibition LOEC - Pseudokirchneriella subcapitata: 16 mg/l (96 h)

Persistence and Degradability:

No data available

Bioaccumulative potential:

Bioaccumulation - Lepomis macrochirus (Bluegill): 64 µg (28 d)

Bioconcentration Factor (BCF): 220

Mobility in Soil:

No data available

Results of PBT and vPvB assessment:

Not required/conducted

Other Adverse Effects:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

13

DISPOSAL CONSIDERATIONS

Product: Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 9 of 10

14

TRANSPORT INFORMATION

DOT Class: Corrosive (8) #8

UN #: UN 3262, Class: 8, Proper Shipping Name: Corrosive solid, basic, inorganic, n.o.s. (Sodium Metasilicate, Anhydrous and Sodium Hydroxide)

DOT (US)

UN Number: 3262

Class: 8

Packing Group: II

ERG #: 154

Proper Shipping Name: Corrosive solid, basic, inorganic, n.o.s. (Sodium Metasilicate, Anhydrous and Sodium Hydroxide)

Reportable Quantity (RQ): 1000 lbs (Sodium Hydroxide, solid)

Marine Pollutant: No

Poison Inhalation Hazard(s): No

IMDG

UN Number: 3262

Class: 8

Packing Group: II

EMS-No: F-A, S-B

Proper Shipping Name: Corrosive solid, basic, inorganic, n.o.s. (Sodium Metasilicate, Anhydrous and Sodium Hydroxide)

Marine Pollutant: No

IATA

UN Number: 3262

Class: 8

Packing Group: II

ERG #: 154

Proper Shipping Name: Corrosive solid, basic, inorganic, n.o.s. (Sodium Metasilicate, Anhydrous and Sodium Hydroxide)

Marine Pollutant: No



15

REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

*Sodium hydroxide, solid (1310732 30-40%) CERCLA, CSWHS, MASS, NJHS, OSHAWAC, PA, SARA311/312, TSCA, TXAIR

*Carbonic acid disodium salt (497198 20-30%) NJHS, PA, SARA311/312, TSCA

*Silicic acid (H₂SiO₃), disodium salt (6834920 5-15%) NJHS, PA, SARA311/312, TSCA

*Triphosphoric acid, pentasodium salt (7758294 <10%) MASS, NJHS, PA, TSCA

*Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy- (9016459 <10%) NJHS, PA, SARA311/312, TSCA

*Benzenesulfonic acid, dodecyl-, sodium salt (25155300 <2%) CERCLA, CSWHS, MASS, NJHS, PA, SARA311/312, TSCA

Safety Data Sheet (SDS)

Applied Chemical Innovations, LLC

ACI-Pride, Heavy Soil

SDS Number: 135

Revision Date: 2/7/2015

Page 10 of 10

REGULATORY KEY DESCRIPTIONS

CERCLA = Superfund clean up substance
CSWS = Clean water Act Hazardous substances
MASS = MA Massachusetts Hazardous Substances List
NJHS = New Jersey Right to Know Hazardous Substances
OSHA = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
SARA311/312 = SARA 311/312 Toxic Chemicals
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level

16

OTHER INFORMATION

Disclaimer:

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that Applied Chemical Innovations, LLC believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of Applied Chemical Innovations, LLC's control, Applied Chemical Innovations, LLC makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

Preparation Information:

GHS Conversion Services
www.ghsconversionservices.com
(669) 236-0304
(414) 336-2546