Safety Data Sheet

ZIP CLEAN

SDS Revision Date: **03/01/2022**

1. Identification

1.1. Product identifier

Product Identity	ZIP CLEAN
Alternate Names	55-021, Blended Formula, Zip Clean Heavy-Duty General-Purpose Parts Cleaner- 55 gallon

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	Jet spray machine or dip cleaner & degreaser. Caustic base, yet safe on all surfaces except aluminum.
Application Method	Read all precautions and instructions carefully before and after use.

1.3. Details of the supplier of the safety data sheet

Company Name	ComStar International Inc. 20-47 128th Street, College Point, NY 11356
Telephone No.	718-445-7900 800-328-0142 Fax: 718-353-5998

Emergency 24 HR response No: 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Corr/Irri: 1B; H314	Causes severe skin burns and eye damage
Eye/damage irritation, 1; H318	Causes serious eye damage.
Hazardous to the aquatic environment-Acute Hazard, 3; H402	Harmful to aquatic life

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Warning

[Hazard statement(s)]

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H402: Harmful to aquatic life.

[Prevention]:

P260: Do not breathe dust, vapors.

P264: Wash exposed skin thoroughly after handling.

P273: Avoid release to the environment.

P280: Wear eye protection, face protection, protective clothing, protective gloves.

[Response]:

P301+330+331: **If swallowed**: rinse mouth. Do not induce vomiting.

P303+361+353: **If on skin (or hair):** remove all contaminated clothing. Rinse skin with water/shower.

P304: **If inhaled**: Remove victim to fresh air and keep at rest for easy breathing

P305+351+338**: If in eyes**: Rinse continuously with water for several minutes. Remove contact lenses, continue rinsing.

P310: Call a poison center or doctor / physician if you feel unwell.

P340: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P363: Wash contaminated clothing before reuse.

[Storage]:

P405: Store locked up

[Disposal]:

P501: Dispose of contents/container to comply with local, state and federal regulations.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

2.3. Other hazards which do not result in classification.

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
SODIUM HYDROXIDE SOLUTION CAS#: 1310-73-2	<20	Skin Corr. 1B H314 Eye Dam. 1 H318 Aquatic Acute 3 H402	

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
Eyes	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.
Skin	Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.
Ingestion	Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Do not give chemical antidote. Immediately consult a doctor/medical service. Call poison information center (www.big.be/antigif.htm). Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital. Rinse mouth. Do not induce vomiting. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	Exposure to high concentrations: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Following symptoms may appear later: Possible laryngeal spasm/oedema. Risk of lung edema. Respiratory difficulties.
Symptoms/effects after skin contact	Causes burns/corrosion of the skin. Slow-healing wounds.
Symptoms/effects after eye contact	Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.
Symptoms/effects after ingestion	Vomiting. Diarrhea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. After absorption of large quantities: Disturbances of consciousness.
Chronic symptoms	On continuous/repeated exposure/contact: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

5. Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media

Extinguishing media for surrounding fires: Adapt extinguishing media to the environment. Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media

Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

Direct Fire Hazard: Noncombustible. Indirect Fire Hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard: Indirect explosion hazard. Reactions with explosion hazards: see "Reactivity Hazard".

Reactivity: Violent exothermic reaction with water (moisture): (increased) risk of fire. On heating: release of corrosive gases/vapors. Absorbs the atmospheric CO2. Violent exothermic reaction with (some) acids. May be corrosive to metals. Reacts with (some) metals: release of highly flammable gases/vapors (hydrogen).

5.3. Advice for fire-fighters

Precautionary measures fire: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows.

Firefighting instructions: Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible, collect or contain it.

Protection during firefighting: Heat/fire exposure: compressed air/oxygen apparatus.

Wear self-contained breathing apparatus and protective clothing.

ERG Guide No. **---**

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.11. For non-emergency personnel

Protective equipment:
Gloves. Face-shield. Corrosion-proof suit. Large spills/in enclosed spaces: compressed air apparatus. Large spills/in enclosed spaces: gas-tight suit. See "Material-Handling" to select protective clothing.

Emergency procedures:
Mark the danger area. No naked flames. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

6.1.2 For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment:
Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapor with water curtain. Heat exposure: dilute toxic gas/vapor with water spray. Take account of toxic/corrosive precipitation water.

Methods for cleaning up:
Take up liquid spill into absorbent material, e.g.: sand, saw dust, kieselguhr. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Small quantities of liquid spill: neutralize with acid solution. Wash away neutralized product with plentiful water. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to the other sections

See Heading 8. Exposure controls and personal protection.

7. Handling and storage

7.1. Precautions for safe handling

Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle and open the container with care. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures
Wash exposed skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures
Comply with applicable regulations.

Storage conditions
Keep only in the original container in a cool, well-ventilated place away from: incompatible materials. Keep container closed when not in use.

Incompatible products
Strong bases. Strong acids

Incompatible materials
Sources of ignition. Direct sunlight.

Storage temperature
> 15 °C

Heat-ignition
Keep substance away from: heat sources.

Prohibitions on mixed storage
Keep substance away from: combustible materials. strong acids. metals.

Storage area
Store in a dry area. Keep container in a well-ventilated place. Keep locked up. Protect against frost. Provide for a tub to collect spills. Unauthorized persons are not admitted. Meet the legal requirements

Special rules on packaging
Special requirements: hermetical. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packaging’s in solid containers.

Packaging materials

Suitable material: stainless steel. nickel. polyethylene. polypropylene. glass. stoneware/porcelain.
Material to avoid: lead. aluminum. copper. tin. zinc. bronze.

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure
Sodium Hydroxide (1310-73-2)

OSHA	OSHA PEL (TWA) (mg/m³)	2 mg/m³
IDLH	US IDLH (mg/m³)	10 mg/m³
NIOSH	NIOSH REL (ceiling) (mg/m³)	2 mg/m³
ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³ (Sodium hydroxide; USA; Momentary value; TLV - Adopted Value)

Exposure
Sodium Hydroxide (1310-73-2)

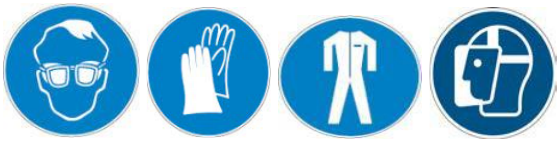
ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³ (Sodium hydroxide; USA; Momentary value; TLV - Adopted Value)
OSHA	OSHA PEL (TWA) (mg/m³)	2 mg/m³
IDLH	US IDLH (mg/m³)	10 mg/m³
NIOSH	NIOSH REL (ceiling) (mg/m³)	2 mg/m³

8.2. Appropriate engineering controls

Appropriate engineering controls:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

8.3. Individual protection measures/personal protective equipment

Personal protective equipment:
Protective gloves. Gloves. Protective clothing. Face shield.



Materials for protective clothing

Give excellent resistance: nitrile rubber. Give good resistance: No data available. Give less resistance: chlorinated polyethylene. Styrene-butadiene rubber. Nitrile rubber/PVC. Give poor resistance: PVA natural fibers.

8.3. Exposure controls

Respiratory protection:	Wear gas mask with filter type B if conc, in air > exposure limit.
Hand protection:	Wear protective gloves
Eyes	Safety glasses with side shields, goggles or face shield are recommended.
Skin and body protection	Wear overalls to keep skin contact to a minimum. Corrosion-proof clothing.
Engineering Controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc. Recommended Decontamination Facilities: Eye bath, washing facilities.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse. Do not eat, drink, or smoke during use.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Liquid
Color	Yellow
Odor	Odorless
Odor threshold	Not Measured
pH	14 (8%)
Melting point	12 °C
Freezing point	No data available
Boiling point	143 °C
Flash Point	Not applicable
Evaporation rate (butyl acetate= 1)	No data available
Flammability (solid, gas)	Non flammable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** No data available **Upper Explosive Limit:** No data available
Vapor pressure (Pa)	1.2 hPa (20 °C)
Vapor Density	No data available
Specific Gravity	> 1525 kg/m3
Molecular mass	40 g/mol

Solubility in Water	Exothermically soluble in water. Soluble in ethanol. Soluble in methanol. Soluble in glycerol. Water: Complete
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	79 mPa.s (20 °C)
Explosion limits	No data available
Explosive properties	Not applicable
Oxidizing properties	None

9.2. Other information

Minimum ignition energy: Not applicable

VOC content: Not applicable (inorganic)

Other properties: Clear. Hygroscopic. Slightly volatile. Substance has basic reaction.

10. Stability and reactivity

10.1. Reactivity

Violent exothermic reaction with water (moisture): (increased) risk of fire. On heating: release of corrosive gases/vapors. Absorbs the atmospheric CO2. Violent exothermic reaction with (some) acids. May be corrosive to metals. Reacts with (some) metals: release of highly flammable gases/vapors (hydrogen).

10.2. Chemical stability

Stable under normal circumstances. Absorbs atmospheric CO2. Hygroscopic. Not established.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids, metals.

10.6. Hazardous decomposition products

Sodium oxide. Thermal decomposition generates: Corrosive vapors.

11. Toxicological information

Likely routes of exposure: Skin and eye contact

Acute toxicity: Not classified

Sodium Hydroxide (1310-73-2)	
ATE US (dermal)	1350 mg/kg body weight

Classification	Category	Hazard Description
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage. pH: 14 (8%)
Serious eye damage/irritation	1	Causes serious eye damage. pH: 14 (8%)
Respiratory or skin sensitization	---	Not classified
Germ cell mutagenicity	---	Not classified Based on available data, the classification criteria are not met
Carcinogenicity	---	Not classified
Reproductive toxicity	---	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (STOT)-single exposure	---	Not classified
Specific target organ toxicity (STOT)-repeated exposure	---	Not classified
Aspiration hazard	---	Not classified
Potential Adverse human health effects and symptoms	---	Based on available data, the classification criteria are not met.
Symptoms/effects after inhalation	---	Exposure to high concentrations: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Following symptoms may appear later: Possible laryngeal spasm/oedema. Risk of lung edema. Respiratory difficulties.
Symptoms/effects after skin contact	---	Caustic burns/corrosion of the skin. Slow-healing wounds.
Symptoms/effects after eye contact	---	Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.
Symptoms/effects after ingestion	---	Vomiting. Diarrhea. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Bleeding of the gastrointestinal tract. Shock. After absorption of large quantities Disturbances of consciousness
Chronic symptoms	---	ON continuous/repeated exposure/contact: Dry skin. Skin rash/inflammation. Possible inflammation of the respiratory tract.

12. Ecological information

12.1. Toxicity

Ecology – general: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology – air: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006).

Ecology – water: Ground water pollutant. Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC). Harmful to fishes. Harmful to invertebrates (Daphnia). pH shift.

Aquatic Ecotoxicity

Ingredient	96 hr. LC50 fish, mg/l	48 hr. EC50 crustacea, mg/l	ErC50 algae, mg/l
SODIUM HYDROXIDE (1310-73-2)	45.4 mg/l	40.38 mg/	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove for physico-chemical/biological treatment. Do not discharge into drains or the environment.
Observe all federal, state and local regulations when disposing of this substance.
Ecology - waste materials: Avoid release to the environment.

14. Transport information

Transport document description: UN1824 Sodium hydroxide solution, 8, II

UN-No. (DOT) UN1824
Proper Shipping Name (DOT) Sodium hydroxide solution

Transport hazard class(es) (DOT) 173.136	8 - Class 8 - Corrosive material 49 CFR
Packing group (DOT)	II - Medium Danger
Hazard labels (DOT)	8 - Corrosive

DOT Packaging Non Bulk (49 CFR 173.xxx)	202
DOT Packaging Bulk (49 CFR 173.xxx)	242
DOT Special Provisions (49 CFR 172.102)	B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material. T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees Celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees Celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
DOT Packaging Exceptions (49 CFR 173.xxx)	154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	30 L
DOT Vessel Stowage Location ‘‘on deck’’ or and on a passenger	A - The material may be stowed “under deck” on a cargo vessel vessel.
DOT Vessel Stowage Other	52 - Stow ‘‘separated from’’ acids
Other information available.	No supplementary information

15. Regulatory information

15.1. US Federal regulations

Sodium Hydroxide (1310-73-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Not subject to reporting requirements of the United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 311/312 Hazard Classes	Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Sodium Hydroxide (1310-73-2)

RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

15.2. International regulations

CANADA

Sodium Hydroxide (1310-73-2)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National Regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

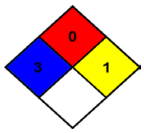
H312 Harmful in contact with skin

H314 Causes serious skin burns and eye damage

H318 Causes serious eye damage

H402 harmful to aquatic life

NFPA health hazard	3 - Materials that, under emergency conditions, can cause serious or permanent injury.
NFPA fire hazard	0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



Hazard Rating	
Health	3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability	0 Minimal Hazard - Materials that will not burn
Physical	1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.
Personal protection	H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

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