

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium Hydroxide Flakes ACS Grade
Synonyms: sodium hydroxide
CAS Number: 1310-73-2
Grade/Purity: ACS Grade
Product Type: Bases
Product Use: Industrial, Manufacturing or Laboratory use
Manufacturer/Supplier: Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574
Information: 512-365-6838 | www.alliancechemical.com
Emergency: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Word: Danger

GHS Pictograms:



Hazard Statements:

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| H290 | May be corrosive to metals |
| H314 | Causes severe skin burns and eye damage |

Precautionary Statements:

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| P234 | Keep only in original packaging. |
| P260 | Do not breathe dust, fume, gas, mist, vapours or spray. |
| P264 | Wash hands and face thoroughly after handling. |
| P280 | Wear protective gloves, protective clothing, and eye/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 or shower. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep 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. |
| P321 | Specific treatment (see first-aid information on this label). |
| P363 | Wash contaminated clothing before reuse. |
| P405 | Store locked up. |
| P501 | Dispose of contents and container in accordance with local, regional, national, and international regulations. |

3. COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENT | % MIN | % MAX | CAS # | EINECS# / ELINCS# | FORMULA | MOLECULAR WEIGHT |
|-------------------------|-------|-------|-----------|-------------------|---------|------------------|
| Sodium Hydroxide Flakes | 96.5 | 97.5 | 1310-73-2 | 215-185-5 | HNaO | 39.997 g/mol |

4. FIRST-AID MEASURES

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| Eyes | EYES: flush with water at once for at least 15 min. |
| Skin | Remove contaminated clothes. Rinse skin with plenty of water or shower for at least 15 minutes. Refer immediately for medical attention. |
| Inhalation | Breathing: RESPIRATORY SUPPORT - If a person breathes large amounts of this chemical, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible. |
| Ingestion | Rinse mouth. Do NOT induce vomiting. If within a few minutes after ingestion, one small glass of water may be given to drink. Refer immediately for medical attention. |

5. FIRE-FIGHTING MEASURES

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| Suitable Media | Dry chemical, CO ₂ , water spray. Use water spray to cool containers. |
| Unsuitable Media | Do not use a solid water stream as it may scatter and spread fire. |
| Protective Equipment | Wear self-contained breathing apparatus and full protective clothing. |
| Combustion Products | May include carbon oxides and other toxic fumes. See Section 10. |

6. ACCIDENTAL RELEASE MEASURES

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| Personal Precautions | Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. |
| Environmental | Prevent leakage or spillage from entering drains, sewers, or waterways. |
| Containment & Cleanup | Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations. |

7. HANDLING AND STORAGE

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| Safe Handling | Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use. |
| Safe Storage | Store in a cool, dry, well-ventilated area. Use corrosion-resistant containers. Keep away from incompatible materials (see Section 10). Keep containers tightly closed. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

Occupational Exposure Limits:

| AGENCY | EXPOSURE LIMIT |
|-----------|-----------------------------|
| OSHA PEL | 2 mg/m ³ TWA |
| NIOSH REL | 2 mg/m ³ ceiling |
| IDLH | 10 mg/m ³ |

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| Eyes | Wear chemical safety goggles or face shield. |
| Skin | Wear chemical-resistant gloves and protective clothing. |
| Inhalation | For mist or aerosol applications (e.g., spray, atomization, pressure washing), use a NIOSH-approved half-face air-purifying respirator with combination acid gas / P100 cartridges. For dust exposure, an N95 or P100 particulate filter is acceptable. Ensure local exhaust ventilation. |

Exposure limits sourced from NIOSH Pocket Guide and OSHA 29 CFR 1910.1000. Hazard classification from ECHA Classification and Labelling Inventory (CLP Annex VI).

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance | White hygroscopic flakes |
| Odor | Characteristic |
| Median Particle Size | Not Available |
| Particle Size Distribution | Not Available |
| Particle Shape | Not Available |
| Surface Area | Not Available |
| Dustiness | Not Available |
| Hygroscopicity | Not Available |
| pH | Not Available |
| Melting Point | 318°C |
| Boiling Point | 1388°C |
| Flash Point | Not applicable |
| Vapor Pressure | Not Available |
| Specific Gravity | 2.13 |
| Solubility | Highly soluble in water, moderate solubility in alcohols, forms alkaline solutions |
| Molecular Formula | HNaO |
| Molecular Weight | 39.997 g/mol |

10. STABILITY AND REACTIVITY

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| Chemical Stability | Stable under recommended storage conditions. |
| Hazardous Reactions | None under normal processing conditions. |
| Conditions to Avoid | Heat, sparks, open flame, and incompatible materials. |
| Incompatible Materials | Strong acids, strong bases, reactive metals, water (for some concentrated forms). |
| Decomposition Products | May produce carbon oxides and other toxic fumes when heated to decomposition. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: See Section 2 for GHS hazard classification.

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| IARC | Not listed as carcinogen. |
| NTP | Not listed as carcinogen. |
| OSHA | Not listed as carcinogen. |

12. ECOLOGICAL INFORMATION

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| Ecotoxicity | Daphnia EC50: 40.38 mg/L (48 h, Ceriodaphnia dubia (<24 h neonate) — pH-driven; 95% CI 34.59–47.13 mg/L); Fish LC50: 125 mg/L (96 h, Gambusia affinis (mosquitofish) — pH-driven) |
| Persistence | Not applicable (inorganic; dissociates to Na ⁺ and OH ⁻) |
| Bioaccumulation | Not Available |
| Mobility in Soil | Highly water-soluble |

13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

14. TRANSPORT INFORMATION

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| US DOT | UN1823, Sodium hydroxide, solid, 8, PG II |
| IMDG | UN1823, Sodium hydroxide, solid, 8, PG II |
| IATA/ICAO | UN1823, Sodium hydroxide, solid, 8, PG II |
| Marine Pollutant | No |

15. REGULATORY INFORMATION

Regulatory listings not yet on file in this system; consult OSHA, EPA TSCA, EPCRA TRI, and California OEHHA directly.

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| SARA 311/312 | See Section 2 for hazard classifications. |
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16. OTHER INFORMATION

Revision Date: 06/26/2026

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