

SAFETY DATA SHEET · EU CLP / GHS FORMAT

Industrial Alkaline Surfactant Cleaner (Concentrate)

A complete, 16-section Safety Data Sheet authored to Regulation (EC) No 1907/2006 (REACH) Annex II and Regulation (EC) No 1272/2008 (CLP). This sample demonstrates full classification workflow — from composition analysis and mixture calculation to label elements, transport classification, and regulatory review.

SCENARIO A formulator of professional cleaning products requires a compliant EU SDS for an alkaline surfactant concentrate before placing it on the market. Composition is known; classification and documentation are not.	DELIVERABLE A market-ready 16-section SDS with defensible mixture classification, complete label elements, and a documented classification rationale.
FRAMEWORKS APPLIED CLP (EC) 1272/2008 · REACH Annex II · GHS Rev. 10 · ADR/IMDG transport	METHOD Mixture classification by calculation (additivity & concentration limits), not read-across from a template.

- **Illustrative reference sample.** Product name, supplier and composition are fictional but chemically realistic. Prepared by Chemply to demonstrate authoring methodology — no client confidentiality is involved.

Industrial Alkaline Surfactant Cleaner (Concentrate)

According to (EC) 1907/2006
Rev. 1.0 · Issue 2025-06-01

01 Identification of the substance/mixture and of the company

1.1 Product identifier	Industrial Alkaline Surfactant Cleaner — Concentrate
Product code	CLR-40-CONC
1.2 Relevant identified uses	Industrial & institutional hard-surface cleaning. To be diluted before use.
Uses advised against	Consumer use. Any use other than the identified uses.
1.3 Supplier	[Illustrative Formulator Ltd.] · SDS prepared by Chemply · chemply.co
1.4 Emergency telephone	+[supplier 24 h number] · National Poison Information Centre (country-specific)

02 Hazards identification

2.1 Classification (Regulation (EC) No 1272/2008)

Skin Irrit. 2 — H315

Eye Dam. 1 — H318

2.2 Label elements



GHS05 Corrosion

Signal word: **ANGER**

Hazard statements — H315 Causes skin irritation. H318 Causes serious eye damage.

Precautionary — P280 Wear eye/face protection. P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes; remove contact lenses if present and easy to do. P310 Immediately call a POISON CENTER/doctor. P302+P352 IF ON SKIN: wash with plenty of water.

2.3 Other hazards — The mixture does not meet PBT or vPvB criteria (Annex XIII). No endocrine-disrupting properties identified.

03 Composition / information on ingredients

Component	CAS / EC	% w/w	CLP classification
Sodium laureth sulfate	68585-34-2 / 500-234-8	10–15	Skin Irrit. 2 H315; Eye Dam. 1 H318
Alcohols, C9-11, ethoxylated	68439-46-3 / —	5–10	Acute Tox. 4 H302; Eye Dam. 1 H318
2-Butoxyethanol	111-76-2 / 203-905-0	3–5	Acute Tox. 4 H302+H312+H332; Skin Irrit. 2 H315; Eye Irrit. 2 H319
Sodium hydroxide	1310-73-2 / 215-185-5	1–3	Skin Corr. 1A H314; Met. Corr. 1 H290
Sodium citrate	68-04-2 / 200-675-3	1–5	Not classified
Water	7732-18-5 / 231-791-2	to 100	Not classified

Full text of H-statements in Section 16. Concentration ranges disclosed per CLP Article 18 and Annex II §3.2.

04 First-aid measures

Eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor — risk of serious eye damage.
Skin contact	Remove contaminated clothing. Wash affected area with plenty of water. If irritation persists, seek medical advice.
Inhalation	Move to fresh air. If symptoms occur, obtain medical attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Give water to drink if conscious. Seek medical attention.
Symptoms / effects	Redness, pain and irritation of skin and eyes. Serious eye damage on direct contact.

05 Firefighting measures

Extinguishing media	Product is aqueous and non-flammable. Use media appropriate to surrounding fire: water spray, foam, dry powder or CO ₂ .
Special hazards	Thermal decomposition may release oxides of carbon and sodium. No specific explosion hazard.
Advice for firefighters	Wear self-contained breathing apparatus and full protective clothing. Prevent run-off from entering drains or watercourses.

06 Accidental release measures

Personal precautions	Wear eye protection and gloves. Avoid contact with skin and eyes. Ensure adequate ventilation. Beware of slippery surfaces.
Environmental precautions	Do not allow to enter drains, surface water or groundwater. Dilute large spills with water where permitted.
Containment / cleanup	Contain and absorb with inert material (sand, vermiculite). Collect into labelled containers for disposal. Rinse area with water.

07 Handling and storage

Safe handling	Avoid contact with eyes and skin. Do not mix with acids. Use only in well-ventilated areas. Wash hands after use.
Storage	Store upright in original closed container, 5–30 °C, away from acids and incompatible metals (aluminium, zinc). Keep out of reach of children.

08 Exposure controls / personal protection

Component	EU IOELV (8-h TWA)	Basis
2-Butoxyethanol	98 mg/m ³ (20 ppm)	Directive 2000/39/EC · skin notation
Sodium hydroxide	2 mg/m ³ (ceiling)	Indicative national OEL

Engineering controls — Adequate general/local ventilation. Eyes: chemical safety goggles (EN 166). Hands: nitrile gloves to EN ISO 374-1 (Type A), thickness ≥ 0.38 mm, breakthrough level 6 (> 480 min); butyl rubber also suitable. Body: chemical-resistant apron / overalls. Respiratory: not normally required with adequate ventilation; where mist may form, use a P2/P3 particulate filter (EN 143).

09 Physical and chemical properties

Appearance	Clear amber liquid	pH (conc.)	12.5 – 13.0
Odour	Mild, characteristic	Relative density	1.04 – 1.07 g/cm ³
Physical state	Liquid at 20 °C	Water solubility	Fully miscible
Flash point	Not applicable (aqueous)	Flammability	Non-flammable
Boiling point	≈ 100 °C	Viscosity	Low (mobile liquid)

10 Stability and reactivity

Stability	Stable under normal conditions of storage and use.
Conditions to avoid	Extreme temperatures. Contact with incompatible materials.
Incompatible materials	Strong acids (violent neutralisation); aluminium, zinc and other amphoteric metals (hydrogen evolution).
Hazardous decomposition	None under normal use. On combustion: CO, CO ₂ , sodium oxides.

11 Toxicological information

Acute toxicity	Not classified. Calculated ATE (oral) > 2000 mg/kg based on component data.
Skin corrosion/irritation	Skin Irrit. 2, H315 — assigned by the additivity (summation) method of Annex I to (EC) 1272/2008. Sodium hydroxide (Skin Corr. 1A) at 1–3 % remains below the 5 % generic concentration limit that would trigger Skin Corr. 1; the final category is supported by measured pH and reserve-alkalinity data rather than concentration alone.
Serious eye damage	Eye Dam. 1, H318 — derived per Annex I §3.3 using the summation method: the weighted sum of Eye Dam. 1 and Eye Irrit. 2 contributors, applying their generic concentration limits, reaches the threshold for Category 1.
Sensitisation / CMR / STOT	No component classified as sensitiser, CMR, or STOT at relevant concentrations.

12 Ecological information

Aquatic toxicity	Not classified as hazardous to the aquatic environment at supplied composition. Surfactants may affect aquatic organisms if released undiluted.
Biodegradability	Surfactants comply with Regulation (EC) No 648/2004 (ultimate biodegradability).
PBT / vPvB	Does not meet PBT/vPvB criteria.

13 Disposal considerations

Dispose of contents and container in accordance with local, regional and national regulations. Do not discharge undiluted product to drains. The applicable European Waste Code (LoW) depends on the waste holder's process and point of origin and must be assigned by the user — a single code is deliberately not specified here. Fully rinsed containers may be recycled where permitted.

14 Transport information

ADR / RID (road / rail) Not classified as dangerous goods for transport.

IMDG (sea) / IATA (air) Not classified as dangerous goods for transport.

UN number None Marine pollutant No

Consistent with the hazard profile in Section 2 (Skin Irrit. 2; Eye Dam. 1 — *not* Skin Corr. 1), the mixture does not meet the criteria for transport Class 8. This is corroborated by the low sodium-hydroxide content and by reserve-alkalinity / pH testing. Should reformulation raise corrosivity, the transport classification (e.g. UN 3266, Class 8) must be reassessed per consignment.

15 Regulatory information

REACH Components are registered where required under REACH. No substances on the Candidate List (SVHC) are present ≥ 0.1 % w/w. No Annex XIV (Authorisation) or Annex XVII (Restriction) entries apply to the identified uses.

CLP Classified and labelled per Regulation (EC) No 1272/2008.

Detergents Reg. Subject to (EC) No 648/2004 — ingredient labelling and biodegradability requirements met.

PCN / UFI Hazardous mixture — a UFI shall be generated and included on the label, and a Poison Centre Notification made under Annex VIII to CLP, where required prior to placing on the EU market.

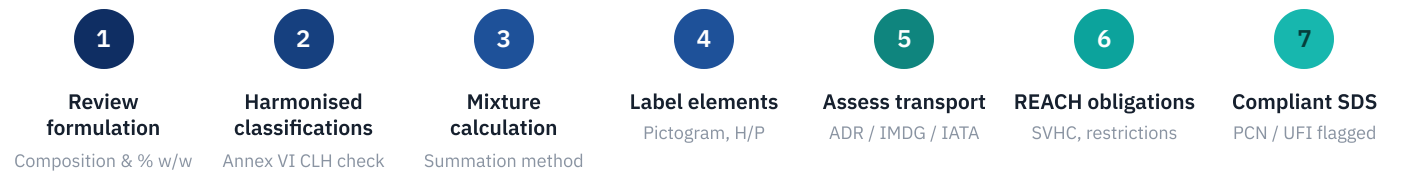
16 Other information

Full text of H-statements (Section 3): H290 May be corrosive to metals. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled.

Abbreviations: ATE — Acute Toxicity Estimate; IOELV — Indicative Occupational Exposure Limit Value; PBT — Persistent, Bioaccumulative, Toxic; SVHC — Substance of Very High Concern; UFI — Unique Formula Identifier.

This SDS was prepared to demonstrate authoring methodology. Data are illustrative. The information relates only to the material specified and is provided in good faith; it does not constitute a warranty. Users must satisfy themselves as to suitability for their own purposes. Prepared by Chemply · chemply.co

HOW THIS SDS WAS PRODUCED



REGULATORY SUMMARY

CLP classification	Skin Irrit. 2 (H315); Eye Dam. 1 (H318)
Signal word	Danger
Pictogram	GHS05
Transport (ADR/IMDG/IATA)	Not regulated
UFI required	Yes
PCN required	Yes
REACH	Annex II compliant; no SVHC ≥ 0.1 %
SDS revision	1.0 · 2025-06-01

REVIEWER'S NOTE

Classification was derived by the additivity / summation method of Annex I rather than read across from a template. The internal consistency between the CLP hazard profile (Section 2) and the transport outcome (Section 14) is deliberate: a mixture classified Skin Irrit. 2 / Eye Dam. 1 does not meet transport Class 8 criteria, and the SDS states this explicitly with the reserve-alkalinity rationale.