Caustic Soda Solution 50% Membrane Grade

Global Chemical Inventory Compliance

This product complies with, or is listed on several Global Inventories as detailed in the following table. Y: on inventory (or not required); N: checked and one or more components are NOT on the inventory; BLANK: not assessed.

<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>EINECS</td>
<td>Y</td>
</tr>
<tr>
<td>Europe</td>
<td>ELINCS</td>
<td>-</td>
</tr>
<tr>
<td>Canada</td>
<td>DSL</td>
<td>Y</td>
</tr>
<tr>
<td>Canada</td>
<td>NDSL</td>
<td>-</td>
</tr>
<tr>
<td>United States</td>
<td>TSCA</td>
<td>Y</td>
</tr>
<tr>
<td>Australia</td>
<td>AICS</td>
<td>Y</td>
</tr>
<tr>
<td>China</td>
<td>IECS</td>
<td>Y</td>
</tr>
<tr>
<td>Japan</td>
<td>ENCS</td>
<td>Y</td>
</tr>
<tr>
<td>Korea</td>
<td>KECI</td>
<td>Y</td>
</tr>
<tr>
<td>New Zealand</td>
<td>NZIoC</td>
<td>Y</td>
</tr>
<tr>
<td>Philippines</td>
<td>PICCS</td>
<td>Y</td>
</tr>
</tbody>
</table>

EU 10/2011 Food Contact

Caustic Soda (CAS# 25322-69-4), as supplied from our manufacturing site in Stade and Schkopau, complies with European Union Commission Directive (EU) 10/2011, as amended, relating to plastic materials and articles intended to come into contact with foodstuffs (also referred to as PIM).

Sodium Hydroxide (reference Number 400) is listed in the list of authorized monomers, other starting substances, macromolecules obtained from microbial fermentation, additives and polymer production aids Annex I - Table 1 with no restrictions.

We would like to draw your attention to the fact that EU Directive 10/2011, which applies to all EU Member States, establishes a limit of 10 mg/dm2 to the overall migration from finished plastic articles into food.

It is the responsibility of both the manufacturers of finished food contact articles as well as the industrial food packers to make sure that these articles in their actual use are in compliance with the imposed QM, as well as the specific and overall migration requirements. Note that only the final finished food contact article can be assessed for "compliance", not the individual substances which are only authorized for use.

Please consult the Directive and its amendments for complete details.

Animal Derived Components

Dow Caustic Soda Solution 50% is produced using common technology and inorganic raw materials. The raw material is brine (natural occurring salt water) from salt sources. The sodium hydroxide (caustic) is produced by the electrolysis process. There are no additives, animal, plant or synthetic source, used in the process or the product. Since there are no materials that are derived from animal sources, then Bovine Spongiform Encephalopathy (BSE)/Transmissible Spongiform Encephalopathy (TSE) is not a concern with this product.
Food Allergens
This product has been evaluated for the source of the raw materials used in its production. There are no raw materials, including additives, used that have their origin in peanuts, soybeans, milk, eggs, fish, shellfish, tree nuts and/or wheat or gluten. Based on this examination of the ingredients and their sources, this product is free of the specified known allergy stimulating food substances.

Materials from Genetically Modified Organisms
The raw materials used in the production of this product are derived from salt water or rocks. The presence of genetically modified organisms (GMO) is not expected.

Kosher
Please be informed that our Schkopau and Stade plants are Kosher certified.

Halal
Please be informed that our plant in Stade is Halal certified.

REACH

For information on the components of our products and their concentrations, please refer to the Material Safety Data Sheets (SDSs) and the Sales Specifications. Any hazardous constituent above 1% (by weight) and carcinogens above 0.1% will appear in the ingredients section of the MSDSs for these products. In addition, consult the Hazardous Decomposition Products section of the MSDSs and the Sales Specifications for further information.

Dow does not routinely analyze for additional materials that are not listed in the SDSs or Sales Specifications. Your inquiry addressed EU Directive 2011/65/EU, the recast for EU Directive 2002/95/EC , on the restriction on the use of certain hazardous substances in electric and electronic equipment (RoHS). This directive contains restrictions on the following materials in electric and electronic equipment: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE). None of these materials are intentionally added to this product.
Heavy Metals, EU 94/62/EC and Coalition of Northeastern Governors (CONEG)

This product conforms to the Coalition of Northeastern Governors (CONEG) and the European Directive 94/62/EC, as amended, on Packaging and Packaging Waste, Article 11. Any incidental levels of lead, cadmium, hexavalent chromium, and mercury do not exceed 100 ppm total.

ASTM F963 - Standard Consumer Safety for Toy Safety

European Standard EN 71/3 concerns the “Safety of Toys”, and specifies requirements for the migration of certain elements, i.e. antimony (Sb), arsenic (As), barium (Ba), cadmium (Cd), chromium (Cr), lead (Pb), mercury (Hg) and selenium (Se) from toy materials and not from paints and varnishes used for toys.


We do not routinely analyze our products for these elements, but all the data we have regarding heavy metal content in our products are far below these limits and are therefore not likely to contribute to concentrations in the final toy material that is under consideration in this Standard EN-71/3. In addition to this, these products are not intentionally manufactured with any chemical substances known to contain heavy metal as listed above.

Canadian Environmental Protection Act Challenge Substances

This product is not intentionally manufactured or formulated with the Batch Lists of Canadian Environmental Protection Agency (CEPA) Challenge Substances released as of the effective date of this document. However, we do not analyze for these specific substances.

(http://www.chemicalsubstanceschimiques.gc.ca/challenge-defi/list-eng.php)

Phthalate Esters

This product is not intentionally manufactured or formulated with the following phthalate esters; however, we do not analyze for these specific substances or compounds.

• Butyl benzyl phthalate (BBP) CAS 000085-68-7
• Diethyl hexyl phthalate (DEHP) CAS 117-81-7
• Diethyl phthalate CAS 000084-66-2
• Diisobutyl phthalate (DIBP) CAS 000084-69-5
• Di-iso-decyl phthalate (DIDP) CAS 26271-40-0
• Di-isononyl phthalate (DINP) CAS 28553-12-0
• Dimethyl phthalate CAS 131-11-3
• Di-n-butyl phthalate (DBP) CAS 000084-74-2
• Di-n-hexyl phthalate (DnHP) CAS 000084-75-3
• Di-n-octyl phthalate (DNOP) CAS 117-84-0.

**Residual Volatile Organic Compounds (VOC)**

With regard to Volatile Organic Compounds (VOC) content, one Environmental Protection Agency (EPA) definition of a VOC is any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate and excluding compounds which have negligible photochemical reactivity such as: ethane, methane, and also methylene chloride, perchloroethylene and acetone, which are Dow products. For other compounds, see 40 Code of Federal Regulations Section 51.100(s) and check for any recent Federal Register notices possibly exempting other negligibly reactive VOCs. Since state or local governments and some specific EPA regulations may be more restrictive than the definition above, please check these sources also.

Under this broad definition, this product is not a VOC.

**BfR Bundesinstitut für Risikobewertung Recommendation**

Caustic Soda (=sodium hydroxide) is listed in BfR Recommendation XXXVI on Paper & Board in Section VIII (preservatives).

**Conflict Minerals Regulation**

For information on the components of our product and their concentrations, please refer to the Material Safety Data Sheet (MSDS) and the Sales Specification. The EU Safety Data Sheet Directive requires the following:

- Any component present at > 0.1% (by weight) and classified as a Category 1 or 2 CMR under Annex I to Directive 67/548/EEC (resp CMR 1a or 1b to ANNEX VI to Directive 1272/2008/EC (CLP)) will appear in the ingredients section of the MSDS.

- Any component present at > 1% and classified as a Category 3 CMR under Annex I to Directive 67/548/EEC (resp CMR 2 to ANNEX VI to Directive 1272/2008 EC (CLP)) will appear in the ingredients section of the MSDS.

Dow does not routinely analyze for additional materials that are not listed in the MSDS or Sales Specification. Caustic Soda Solution 50% products do not contain any materials classified as Carcinogenic, Mutagenic, or Toxic for Reproduction in Directive 76/768/EEC, as amended.

**Residual Solvents**

This product does not contain any of the International Conference on Harmonization (ICH) Listed Solvents and, therefore, will comply with the ICH Residual Solvents Guidelines.
Product Stewardship

The Dow Chemical Company and its subsidiaries (“Dow”) has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take the appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products—from the initial concept and research, to manufacture, use, sale, disposal and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

Medical Applications Policy

NOTICE REGARDING MEDICAL APPLICATION RESTRICTIONS: Dow will not knowingly sell or sample any product or service (“Product”) into any commercial or developmental application that is intended for:

a. long-term or permanent contact with internal bodily fluids or tissues. “Long-term” is contact which exceeds 72 continuous hours;

b. use in cardiac prosthetic devices regardless of the length of time involved (“cardiac prosthetic devices” include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);

c. use as a critical component in medical devices that support or sustain human life; or

d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.

Dow requests that customers considering use of Dow products in medical applications notify Dow so that appropriate assessments may be conducted. Dow does not endorse or claim suitability of its products for specific medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that the Dow product is safe, lawful, and technically suitable for the intended use. DOW MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY DOW PRODUCT FOR USE IN MEDICAL APPLICATIONS.

Disclaimer

NOTICE: No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, the Customer is responsible for determining whether products and the information in this document are appropriate for the Customer’s use and for ensuring that the Customer’s workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

For additional information, not covered by the content of this document, contact us via our web site http://www.dow.com/products_services/.