





قطر للغاز  
QATARGAS

## Material Safety Data Sheet (MSDS)

<p>Product name: NAPHTHENIC SPENT CAUSTIC</p> <p>SUPPLIER: Qatargas Operating Company Limited</p> <p>P.O. Box 22666 Doha, State of Qatar</p> <p>24 - Hour Emergency (call collect): +974-4473-7777</p> <p>R-phrases:</p> <ul style="list-style-type: none"> <li>R22, R36,R37,R38</li> </ul> <p>S-phrases:</p> <ul style="list-style-type: none"> <li>S16,S26</li> </ul>	<div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;"><b>Corrosive in case of contact to the skin or eye</b></p>
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### SECTION 1. CHEMICAL PRODUCT

<b>Product Name:</b>	NAPHTHENIC SPENT CAUSTIC
<b>Product Application:</b>	Suitable for processing by an approved recycling facility

### SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical/ other names:</b>	SPENT CAUSTIC-NAPHTHENIC /SULFIDIC CAUSTIC											
<b>Chemical nature:</b>	Liquid											
<b>Components:</b>	<table border="1"> <thead> <tr> <th>Substance Name</th> <th>Wt%</th> </tr> </thead> <tbody> <tr> <td>SODIUM HYDROXIDE (1310-73-2)</td> <td>1-5</td> </tr> <tr> <td>SODIUM SULFIDE (1313-82-2)</td> <td>0.5 -1.5</td> </tr> <tr> <td>SODIUM MERCAPTIDES (as MERCAPTANS)</td> <td>&lt;1</td> </tr> <tr> <td>NAPHTHENIC OIL</td> <td>&lt;2</td> </tr> </tbody> </table>	Substance Name	Wt%	SODIUM HYDROXIDE (1310-73-2)	1-5	SODIUM SULFIDE (1313-82-2)	0.5 -1.5	SODIUM MERCAPTIDES (as MERCAPTANS)	<1	NAPHTHENIC OIL	<2	
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NAPHTHENIC OIL	<2											
<b>CAS Number:</b>	NA											
<b>Exposure Limits:</b>	See Section 8 for exposure limits (if applicable)											

### SECTION 3. HAZARDS IDENTIFICATION

<b>Principle Routes of Exposure:</b>	Expected to cause severe eye irritation or serious damage to the eye. Expected to cause severe skin irritation or burns. Toxic effects or illness can result from absorption through skin. Toxic effects or illness can result from swallowing this material. IMO MFAG 760
<b>Physico-chemical hazards:</b>	Brown Liquid. If the water is driven off, the remaining organics may be ignitable. IMO EmS 8-15
<b>Product classification:</b>	Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous

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### SECTION 4. FIRST AID MEASURES

<b>Eye Contact:</b>	Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.
<b>Ingestion:</b>	If swallowed, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. Do not induce vomiting. Do not induce vomiting or give anything by mouth to an unconscious person.
<b>Inhalation:</b>	Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, use mouth to mouth resuscitation.
<b>Skin Contact:</b>	<p>Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If widespread contact, immediately remove contaminated clothing under safety shower and wash exposed areas with soap and large quantities of water. Get medical assistance.</p> <p>For lesser contact: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.</p>

### SECTION 5. FIRE FIGHTING MEASURES

<b>Extinguishing Media:</b>	Carbon dioxide, foam, dry chemical and water fog.
<b>Specific Hazards:</b>	Carbon monoxide or Sulfur oxides and compounds may be released on decomposition.
<b>Unusual Fire and Explosion Hazards:</b>	If the water is driven off, the remaining organics may be ignitable. Flash Point C(F): NE Flammable limits - LEL: NE, UEL: NE.NFPA HAZARD ID: Health: 3, Flammability: 1, Reactivity: 1
<b>Special Protective Equipment for Firefighters:</b>	Fire fighters must use recommended protective equipment. This material is difficult to burn; however, use standard chemical fire fighting procedures and consider the hazards of other involved materials.
<b>Explosive Limits:</b>	NA

## SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	See Section 8
<b>Emergency Procedure:</b>	Personnel performing cleanup must use protective equipment. Small spills can be absorbed with fire retardant treated sawdust, diatomaceous earth, etc. Contain and remove larger spills for salvage or disposal. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal or divert to recovery unit. For large spills: Contain material and pump back to holding tank for later disposal. Spills could be neutralized with 6m HCl.
<b>Environmental Precaution</b>	Prevent spills from entering storm sewers or drains and contact with soil.

## SECTION 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid all personal contact. Report spills as required to appropriate authorities.
<b>Storage requirements:</b>	Caustic vapors may accumulate in headspace of storage containers. Store away from oxidizers.
<b>Incompatible products:</b>	Avoid strong oxidizers and strong mineral acid

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Controls:</b>	<p>Ensure sufficient ventilation or use in well ventilated area</p> <p style="text-align: center;"><b><u>OCCUPATIONNAL EXPOSURE LIMITS<sup>1</sup> – OEL</u></b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><b><u>Substance Name (CAS-No.)</u></b></th> <th style="text-align: left;"><b><u>Source</u></b></th> <th style="text-align: left;"><b><u>OEL</u></b></th> <th style="text-align: left;"><b><u>ppm</u></b></th> </tr> </thead> <tbody> <tr> <td>SODIUM HYDROXIDE (1310-73-2)</td> <td>ACGIH</td> <td>TLV<sup>2</sup>(Ceiling)</td> <td>1.2</td> </tr> <tr> <td>SODIUM SULFIDE (1313-82-2)</td> <td>N/A</td> <td></td> <td></td> </tr> </tbody> </table> <p>NOTES: 1. Limits shown for guidance only. Follow applicable regulations. 2. Threshold Limit Value</p>	<b><u>Substance Name (CAS-No.)</u></b>	<b><u>Source</u></b>	<b><u>OEL</u></b>	<b><u>ppm</u></b>	SODIUM HYDROXIDE (1310-73-2)	ACGIH	TLV <sup>2</sup> (Ceiling)	1.2	SODIUM SULFIDE (1313-82-2)	N/A		
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<b>Personal Protection</b>													
<b>Eye Protection:</b>	Chemical type goggles and face shield must be worn.												
<b>Respiratory Protection:</b>	Approved respiratory protective equipment should be used if ventilation is inadequate and breathing of mists or vapors is likely.												
<b>Skin and Body Protection:</b>	Protective clothing such as uniforms, coveralls or lab coats should be worn. Impervious gloves and aprons must be worn. Chemical type goggles with face shield must be worn. When handling large quantities, impervious suits and boots must be worn. Wash hands properly before in contact with food or drinks.												

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE:	Liquid
COLOR:	Brown
ODOR:	Phenolic
ODOR THRESHOLD-ppm:	NE
pH:	14.0
BOILING POINT C(F):	< 99(210)
MELTING POINT C(F):	NA
FLASH POINT C(F):	NE
FLAMMABILITY:	NE
AUTO FLAMMABILITY:	NE
EXPLOSIVE PROPERTIES:	NA
OXIDIZING PROPERTIES:	NA
VAPOR PRESSURE-mmHg 20 C:	1.0
VAPOR DENSITY:	NE
EVAPORATION RATE:	NE
RELATIVE DENSITY, 15/4 C:	1.02
SOLUBILITY IN WATER:	Complete
PARTITION COEFFICIENT:	NE
VISCOSITY AT 40 C, cSt:	0.9
VISCOSITY AT 100 C, cSt:	0.4
POUR POINT C(F):	NE
FREEZING POINT C(F):	NE
VOLATILE ORGANIC COMPOUND:	NE

NA=NOT APPLICABLE  
NE=NOT ESTABLISHED  
D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT QATARGAS OPERATING COMPANY LIMITED.

## SECTION 10. CHEMICAL STABILITY AND REACTIVITY

<b>Stability:</b>	STABILITY (THERMAL, LIGHT, ETC.): Stable.
<b>Materials to avoid :</b>	Strong oxidizers.
<b>Hazardous Decomposition Products:</b>	Carbon monoxide. Sulfur oxides and compounds
<b>Conditions to avoid :</b>	Strong oxidation Strong mineral acids.

## SECTION 11. TOXICOLOGICAL INFORMATION

<b>Acute health effect</b>	
<b>Inhalation:</b>	INHALATION TOXICITY (RATS): Not established
<b>Skin contact:</b>	DERMAL TOXICITY (RABBITS): Toxic (LD50: 50 or greater but 400 mg/kg or less). Based on testing of similar products and/or the components  SKIN IRRITATION (RABBITS): Severe irritant or corrosive. (Primary Irritation Index: 6 or greater). Based on testing of similar products and/or the components.
<b>Eye contact:</b>	EYE IRRITATION (RABBITS): Severe irritant. (Draize score: greater than 55 but 110 or less). Based on testing of similar products and/or the components
<b>Ingestion:</b>	ORAL TOXICITY (RATS): Toxic (LD50: 25 or greater but 200 mg/kg or less). Based on testing of similar products and/or the components.

## SECTION 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

## SECTION 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal:</b>	The product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility.
<b>Waste from Residues/Unused Products:</b>	Disposal of unused product may be subject to RCRA regulations (40 CFR 261) due to the characteristic(s)/ chemical(s) listed below. Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity, or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). pH: 14.0

## SECTION 14. TRANSPORT INFORMATION

<b>UN Number:</b>	IMO: HAZARD CLASS & DIV: 8 UN NUMBER: 1760 PACKING GROUP: PG II
<b>Proper shipping name (international) :</b>	SHIPPING NAME: Corrosive Liquids, n.o.s. (contains SODIUM HYDROXIDE) LABEL(s): Corrosive MARPOL III STATUS: NA EmS #: 8-15

## SECTION 15. REGULATORY INFORMATION

**Regulation  
for  
Ingredients:**

Governmental Inventory Status: TSCA registration not required for chemical byproducts, per 40 CFR 720.30(g).

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III: This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: REACTIVE CHRONIC ACUTE  
This product contains no chemicals reportable under SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>LIST CITATIONS</u>
SODIUM HYDROXIDE	1310-73-2	1, 10, 18, 19, 20, 21, 23, 25, 26

**REGULATORY LISTS SEARCHED**

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive  
Precautionary Label Text: CONTAINS SODIUM HYDROXIDE.

**DANGER!**

CAUSES EYE AND SKIN BURNS.

HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN.

CAUSES RESPIRATORY TRACT IRRITATION.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

WEAR EYE AND SKIN PROTECTIVE CLOTHING WHEN HANDLING.

AVOID BREATHING OF VAPORS OR MISTS.

KEEP CONTAINER CLOSED.

USE WITH ADEQUATE VENTILATION.

WASH THOROUGHLY AFTER HANDLING.

**FIRST AID:**

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES AND/OR SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES UNDER SAFETY SHOWER. WASH SKIN CONTACT AREA WITH SOAP AND WATER. CALL A PHYSICIAN IMMEDIATELY.

LAUNDRER CONTAMINATED CLOTHING BEFORE REUSE. DISCARD SHOES IF MATERIAL HAS PENETRATED TO INSIDE SURFACE.

IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE 1 TO 2 GLASSES OF WATER AND GET MEDICAL ASSISTANCE IMMEDIATELY. NEVER INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED, REMOVE TO FRESH AIR. IF UNCONSCIOUSNESS OCCURS, SEEK IMMEDIATE MEDICAL ASSISTANCE. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. CALL A PHYSICIAN.

**ATTENTION!**

EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUE, INCLUDING FLAMMABLE OR EXPLOSIVE VAPORS. DO NOT CUT, PUNCTURE OR WELD ON OR NEAR CONTAINER. ALL LABEL WARNINGS AND PRECAUTIONS MUST BE OBSERVED UNTIL THE CONTAINER HAS BEEN THOROUGHLY CLEANED OR DESTROYED. REFER TO PRODUCT MATERIAL SAFETY DATA BULLETIN FOR FURTHER SAFETY AND HANDLING INFORMATION.

USE: PROCESS STREAM

<u>INGREDIENT DESCRIPTION</u>	<u>PERCENT</u>	<u>CAS NUMBER</u>
WATER	90-100	7732-18-5
SODIUM HYDROXIDE	1-5	1310-73-2
SODIUM SULFIDE	0.5-1.5	1313-82-2
SODIUM MERCAPTIDES (as MERCAPTANS)	<1	
NAPHTHENIC OIL	<2	

## SECTION 16. OTHER INFORMATION

**Note:**

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user and WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. Nothing is intended as a recommendation for uses which infringe valid patents or as extending any license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users. Use or re-transmission of the information contained herein in any other format than the format as presented is strictly prohibited. Qatargas neither represents nor warrants that the format, content or product formulas contained in this document comply with the laws of any other country except the State of Qatar or Ras Laffan Industrial City Waste Management Procedure.