

Material Safety Data Sheet( MSDS# 830556)

RMA#  
1504H0V24**MATERIAL SAFETY DATA SHEET**

SHELL MSDS: 830556- 1 10/06/00

**PHENOL CONTAMINATED NITROGEN****TELEPHONE NUMBER:**24 HOUR EMERGENCY ASSISTANCE  
CHEMTREC: 800-424-9300GENERAL MSDS ASSISTANCE  
SHELL: 713-241-4819**COMPANY NAME AND ADDRESS**SHELL CHEMICAL COMPANY  
P.O. BOX 4320  
HOUSTON, TX 77210-4320 USA**SECTION I NAME****PRODUCT:** PHENOL CONTAMINATED NITROGEN  
**CHEM NAME:** MIXTURE (SEE SECTION II-A)  
**CHEM FAMILY:** STREAM  
**SHELL CODE:** SSSSS**HEALTH HAZARD:** 4 **FIRE HAZARD:** 2 **REACTIVITY:** 0**SECTION II-A INGREDIENTS**

<u>NO.</u>	<u>COMPOSITION</u>	<u>CAS NO.</u>	<u>PERCENT</u>
P	PHENOL CONTAMINATED NITROGEN	MIXTURE	100
1	PHENOL	108-95-2	0-10
2	NITROGEN	7727-37-9	90-100

**SECTION II-B ACUTE TOXICITY DATA**

<u>NO.</u>	<u>ACUTE ORAL LD50</u>	<u>ACUTE DERMAL LD50</u>	<u>ACUTE INHALATION LD50</u>
1	530 MG/KG (RAT)	850 MG/KG (RABBIT)	NO DATA AVAILABLE

**SECTION III HEALTH INFORMATION**

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

**EYE CONTACT:**

BASED ON COMPONENT 1, MATERIAL MAY BE EXTREMELY IRRITATING TO THE EYES AND MAY CAUSE SEVERE DAMAGE INCLUDING BLINDNESS. VAPORS MAY ALSO BE IRRITATING.

**SKIN CONTACT:**

BASED ON COMPONENT 1, MATERIAL MAY BE EXTREMELY IRRITATING TO THE SKIN. BASED ON HUMAN EXPERIENCE MATERIAL MAY BE HIGHLY TOXIC AND MAY BE FATAL IF EVEN MODERATE AMOUNTS ARE ABSORBED THROUGH THE SKIN; MAY PRODUCE LIVER, KIDNEY AND HEART

DAMAGE. MAY PRODUCE CNS DEPRESSION; MAY PRODUCE RESPIRATORY ARREST.

**INHALATION:**

BASED ON COMPONENT 1, MATERIAL MAY CAUSE SEVERE IRRITATION TO THE NOSE, THROAT AND RESPIRATORY TRACT. MATERIAL IS PRESUMED TO BE HIGHLY TOXIC AND MAY BE FATAL IF INHALED; MAY PRODUCE LIVER, KIDNEY AND HEART DAMAGE. MAY PRODUCE CNS DEPRESSION; MAY PRODUCE RESPIRATORY ARREST.

**INGESTION:**

BASED ON COMPONENT 1, MATERIAL MAY BE HIGHLY TOXIC AND MAY BE FATAL IF SWALLOWED; MAY PRODUCE LIVER, KIDNEY AND HEART DAMAGE. PHENOL IS EXTREMELY IRRITATING TO MOUTH, THROAT, AND STOMACH AND MAY CAUSE PERMANENT DAMAGE. MAY PRODUCE CNS DEPRESSION; MAY PRODUCE RESPIRATORY ARREST.

**SIGNS AND SYMPTOMS:**

IRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONCIOUSNESS AND DEATH MAY OCCUR. KIDNEY DAMAGE MAY BE EVIDENCED BY CHANGES IN URINE OUTPUT, URINE APPEARANCE OF EDEMA (SWELLING FROM FLUID RETENTION). LIVER DAMAGE MAY BE EVIDENCED BY LOSS OF APPETITE, JAUNDICE (YELLOWISH SKINCOLOR) AND SOMETIMES PAIN IN THE UPPER ABDOMEN ON THE RIGHT SIDE. HEART DAMAGE MAY BE EVIDENCED BY SHORTNESS OF BREATH AND, IN SEVERE CASES, BY COLLAPSE (SHOCK).

**AGGRAVATED MEDICAL CONDITIONS:**

PREEXISTING SKIN, EYE AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. IMPAIRED KIDNEY, LIVER, HEART FUNCTIONS FROM PREEXISTING DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

**OTHER HEALTH EFFECTS:**

PHENOL IS TOXIC AND MAY BE FATAL BY ALL ROUTES OF EXPOSURE. BLADDER DAMAGE MAY ALSO OCCUR BY DERMAL, INHALATION, AND INGESTION ROUTES OF EXPOSURE. SKIN DEPIGMENTATION MAY OCCUR THROUGH SKIN CONTACT. MAY CAUSE CARDIAC ARREST BY DERMAL, INHALATION, OR INGESTION ROUTES OF EXPOSURE. RECENT REPRODUCTION DATA PROVIDE EVIDENCE FOR EMBRYO AND FETOTOXIC EFFECTS IN RATS AT A LEVEL OF EXPOSURE NOT ELICITING SIGNIFICANT SYSTEMIC TOXICITY. A SIMILAR STUDY IN MICE SHOWED EFFECTS WITH CONCURRENT MATERNAL TOXICITY AND SUGGEST TERATOGENIC EFFECTS AT HIGH EXPOSURES.

**SECTION IV OCCUPATIONAL EXPOSURE LIMITS**

COMP NO.	OSHA PEL/TWA	PEL/CEILING	ACGIH TLV/TWA	TLV/STEL	OTHER
1	5 PPM (SKIN)		5 PPM (SKIN)		

**SECTION V EMERGENCY AND FIRST AID PROCEDURES****EYE CONTACT:**

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. RINSE CONTINUOUSLY WITH WATER WHILE ON WAY TO GET MEDICAL ATTENTION.

**SKIN CONTACT:**

IMMEDIATELY FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. GET MEDICAL ATTENTION IMMEDIATELY. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED. CONTAMINATED LEATHER ARTICLES, INCLUDING

SHOES, CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED.

**INHALATION:**

REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

**INGESTION:**

DO NOT INDUCE VOMITING. DO NOT GIVE LIQUIDS TO A VERY DROWSY, CONVULSING OR UNCONSCIOUS PERSON. GIVE LARGE QUANTITY OF WATER. IF VOMITING OCCURS, REPEAT LIQUID ADMINISTRATION. GET MEDICAL HELP IMMEDIATELY.

**NOTE TO PHYSICIAN:****SECTION VI SUPPLEMENTAL HEALTH INFORMATION**

PHENOL HAS NOT BEEN FOUND TO BE A CO-CARCINOGEN, BUT IS REPORTED TO BE A TUMOR PROMOTER.

THE EVIDENCE THAT PHENOL IS AN IN VITRO MUTAGEN IS EQUIVOCAL AND INCONCLUSIVE.

**SECTION VII PHYSICAL DATA**

BOILING POINT (DEG F):	SPECIFIC GRAVITY (H2O = 1):	VAPOR PRESSURE (MM HG):
NOT AVAILABLE	1.2	NOT AVAILABLE

MELTING POINT (DEG F):	SOLUBILITY IN WATER:	VAPOR DENSITY (AIR = 1):
NOT AVAILABLE	NOT APPLICABLE	NOT AVAILABLE

PH: 6.0

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1): NOT AVAILABLE

**APPEARANCE AND ODOR:**

MIST/SHARP ANTISEPTIC TYPE SMELL

**SECTION VIII FIRE AND EXPLOSION HAZARDS**

FLASH POINT AND METHOD: NOT AVAILABLE

FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER: N/AV UPPER: N/AV

**EXTINGUISHING MEDIA:**

USE WATER FOG, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2.

**SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:**

CAUTION. COMBUSTIBLE. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE

EXPOSED CONTAINERS WITH WATER.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

**SECTION IX                      REACTIVITY**

**STABILITY:** STABLE

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

**CONDITIONS AND MATERIALS TO AVOID:**

AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS. AVOID CALCIUM HYPOCHLORITE.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

**SECTION X                      EMPLOYEE PROTECTION**

**RESPIRATORY PROTECTION:**

DO NOT BREATHE VAPOR. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER A FULL-FACE, ATMOSPHERE-SUPPLYING RESPIRATOR OR AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

**PROTECTIVE CLOTHING**

DO NOT GET IN EYES. WEAR CHEMICAL GOGGLES IF THERE IS POTENTIAL CONTACT WITH EYES. DO NOT GET ON SKIN, ON CLOTHING. WEAR CHEMICAL-RESISTANT PROTECTIVE CLOTHING SUCH AS GLOVES, OUTER CLOTHING OR APRON, OVERSHOES AND A FACE-SHIELD SUITABLE TO POTENTIAL EXPOSURE. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THE BEST PROTECTION IS PROVIDED BY NEOPRENE, NATURAL RUBBER, OR TEFLON/NOMEX.

**ADDITIONAL PROTECTIVE MEASURES:**

USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR EMERGENCY USE.

**SECTION XI                      ENVIRONMENTAL PROTECTION**

**SPILL OR LEAK PROCEDURES:**

DANGER! HIGHLY TOXIC. PREVENT ALL BODILY CONTACT WITH SPILLED MATERIAL. WEAR APPROPRIATE RESPIRATOR AND FULL-BODY PROTECTIVE CLOTHING. CAUTION. COMBUSTIBLE. \*\*\* LARGE SPILLS \*\*\* ELIMINATE POTENTIAL SOURCES OF IGNITION. WEAR APPROPRIATE RESPIRATOR AND OTHER PROTECTIVE CLOTHING. (SEE SECTION X). SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS AND SEAL TIGHTLY FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTION AS ABOVE. \*\*\* SMALL SPILLS \*\*\* TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL.

**SECTION XII SPECIAL PRECAUTIONS**

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM.

DANGER! MAY CAUSE SEVERE BURNS. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN HAZARDOUS PRODUCT RESIDUES. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. AVOID BREATHING VAPOR. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA, THEN LAUNDRY. CONTAMINATED LEATHER ARTICLES CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

**SECTION XIII TRANSPORTATION REQUIREMENTS****DEPARTMENT OF TRANSPORTATION CLASSIFICATION:**

TRANSPORTATION REQUIREMENTS DETERMINED ON A CASE BY CASE BASIS BY SHIPPING LOCATION

**DOT PROPER SHIPPING NAME:****OTHER REQUIREMENTS:**

BULK, DRUM AND SAMPLE LABELS FOR THIS MATERIAL ARE AVAILABLE FROM THE COMPUTER LABEL SYSTEM (CLS); USE LABEL CODE 830556. THE CLS LABELS DO NOT MEET ANY D.O.T. REQUIREMENTS. THE SHIPPING LOCATION MUST EVALUATE EACH SHIPMENT AND COMPLY WITH D.O.T. MARKING AND LABEL REQUIREMENTS, AS APPROPRIATE.

**SECTION XIV OTHER REGULATORY CONTROLS**

THE COMPONENTS OF THIS MATERIAL ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ATTACHED ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

**SECTION XV STATE REGULATORY INFORMATION**

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE LISTED COMPONENT	CAS NO.	PERCENT	STATE CODE
PHENOL	108-95-2	0-10	CA, CT, FL, IL, LA, MA, ME, MN, NJ, PA, RI
NITROGEN	7727-37-9	90-100	CA, CT, FL, IL, LA, MA, ME, MN, NJ, PA, RI

CA = CALIFORNIA HAZ. SUBST. LIST; CA65C, CA65R, CA65C/R = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT OF 1986 OR PROPOSITION 65 LIST; CT = CONNECTICUT TOXIC. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.

## **SECTION XVI SPECIAL NOTES**

ADDRESS CHANGED.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

WE ARE PROVIDING OUR MOST RECENT MATERIAL SAFETY DATA SHEET AND/OR ENVIRONMENTAL DATA SHEET. IF YOU WISH TO RECEIVE UPDATES TO THIS INFORMATION, PLEASE CALL SHELL'S GENERAL MSDS ASSISTANCE LINE (713-241-4819) TO ENSURE THAT YOU ARE ADDED TO SHELL'S REGULAR MSDS DISTRIBUTION SYSTEM.

BE SAFE. READ OUR PRODUCT  
SAFETY INFORMATION...AND  
PASS IT ON. (PRODUCT  
LIABILITY LAW REQUIRES IT)

SHELL CHEMICAL COMPANY  
P.O. BOX 4320  
HOUSTON, TX 77210-4320 USA

## **ENVIRONMENTAL DATA SHEET**

SHELL EDS: 830556-00 10/06/00

### **PHENOL CONTAMINATED NITROGEN**

#### **TELEPHONE NUMBER:**

24 HOUR EMERGENCY ASSISTANCE  
CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE  
SHELL: 713-241-4819

#### **COMPANY NAME AND ADDRESS**

SHELL CHEMICAL COMPANY  
P.O. BOX 4320  
HOUSTON, TX 77210-4320 USA

PRODUCT CODE: SSSSS

## **SECTION I PRODUCT COMPOSITION**

NO.	COMPOSITION	CAS	PERCENT
P	PHENOL CONTAMINATED NITROGEN	MIXTURE	100
1	PHENOL	108-95-2	0-10
2	NITROGEN	7727-37-9	90-100

**SECTION II          SARA TITLE III INFORMATION**

NO.	EHS RQ	EHS TPQ	SEC-313	313 CATEGORY	311/312 CATEGORY
	(*1)	(*2)	(*3)	(*4)	(*5)
P					H-1
1	1000		YES		

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- \*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC 302  
\*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302  
\*3 = TOXIC CHEMICAL, SEC 313  
\*4 = CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM  
\*5 = CATEGORY (FOR AGGREGATE REPORTING REQUIREMENTS UNDER SARA 311, 312)  
HEALTH: H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD  
H-2 = DELAYED (CHRONIC) HEALTH HAZARD  
PHYSICAL: P-3 = FIRE HAZARD  
P-4 = SUDDEN RELEASE OF PRESSURE HAZARD  
P-5 = REACTIVE HAZARD

**SECTION III          ENVIRONMENTAL RELEASE INFORMATION**

EPA - COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT. UNDER EPA-CERCLA ("SUPERFUND") RELEASES TO AIR, LAND OR WATER WHICH EXCEED THE REPORTABLE QUANTITY MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802. THE REPORTABLE QUANTITY (RQ) FOR RELEASE OF THIS PRODUCT IS 10,000 LBS. WHICH IS BASED ON THE PRESENCE OF PHENOL.

**SECTION IV          RCRA INFORMATION**

UNDER EPA - RCRA (40 CFR 261.24), IF THIS PRODUCT BECOMES A WASTE MATERIAL, IT WOULD BE AN EP TOXIC HAZARDOUS WASTE, HAZARDOUS WASTE NUMBER U188 BASED UPON THE EXTRACT CONCENTRATION OF PHENOL. REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.

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