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DATE OF ISSUE 5/31/2002

SUPERSEDĖS 5/07/2002

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Ch. ral Name & Synonyms	Trade Name & Synonym BLUE BEAST	ıs
Chemical Family: AMINE/GLYCOL ETHER AQUEOUS SOLUTION	Formula Mixture>	X
Manufacturer's Name: CHEMSEARCH DIV. OF NCH CORP.		
Address: BOX 152170 IRVING, TX 75015		
Prepared By: M COHEN/Chemist	Product Code Number 0567	Emergency Phone Number 800-424-9300
	•	

## SECTION II - HAZARDOUS INGREDIENTS

### THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients) SAFROL	Magard CARCINOGEN	TLV NOT EST 1	PEL NOT EST 2	STEL NOT EST	CAS # 94~59~7
MONOETHANOLAMINE (MEA)	CORROSIVE	3 PPM 1	3 PPM 2	6 PPM 1	141-43-5
ETHYLENE GLYCOL MONOBUTYL ETHER (EGBE)	IRRITANT	20 PPM 1	50 PPM 2	NOT EST	111-76-2
NONYLPHENOL POLYETHYLENE GLYCOL ETHER	IRRITANT	NOT EST 1	NOT EST 2	NOT EST	127087~87-0

# SECTION IIa - NON-HAZARDOUS INGREDIENTS (NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE)

**Secret Registry #:** 409363-50168

#### SECTION III - PHYSICAL DATA

Boiling Point (F):	210°	Specific Gravity (H20=1):	1.01
V ressure (MM HG):	12.2	Color:	BLUE
Vapor Density (Arr=1):	0.6	Odor:	SASSAFRAS
PH @ 100% :	12.4	Clarity:	TRANSPARENT
% Volatile by Volume:	95	Evaporation Rate (BU A/C=1):	0.46
H20 Solubility:	COMPLETE	Viscosity:	NON-VISCOUS
	- v,	· · · · · · · · · · · · · · · · · · ·	

#### SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point >200°F / SETAF	Lash		Flammable Limits EGBE	LEL 1.18	UEL 12.7%	
Extinguishing Me X <foam< td=""><td></td><td>X <c02< td=""><td>X <dry chemical<="" td=""><td>X <water spray<="" td=""><td><other< td=""><td></td></other<></td></water></td></dry></td></c02<></td></foam<>		X <c02< td=""><td>X <dry chemical<="" td=""><td>X <water spray<="" td=""><td><other< td=""><td></td></other<></td></water></td></dry></td></c02<>	X <dry chemical<="" td=""><td>X <water spray<="" td=""><td><other< td=""><td></td></other<></td></water></td></dry>	X <water spray<="" td=""><td><other< td=""><td></td></other<></td></water>	<other< td=""><td></td></other<>	
Special Fire Fighting Procedures: FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. EXTINGUISHING MEDIA SHOULD BE CHOSEN BASED ON THE NATURE OF THE SURROUNDING FIRE. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY TO PREVENT BURSTING.						
Unusual Fire and	Explosion Hazards:					

THE USE OF WATER SPRAY (FOG) WHILE EFFECTIVE, MAY CAUSE FROTHING AND FOAMING. NEVER USE A WATER JET AS THIS WILL JUST SPREAD THE FIRE. USE CARE AS SPILLS MAY BE SLIPPERY.

Aerosol Level (NFPA 30B): N/A

NFPA 704 Hazard Rating (0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

<--Flammability 1 <--Instability <--Special

### SECTION V - HEALTH HAZARD DATA

Threshold Limit Value:

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

Effects of Overexposure:

-Acute (Short Term Exposure)

INTACT: CAUSES SEVERE IRRITATION SEEN AS REIMESS, ITCHING AND A BURNING SENSATION. PROLONGED CONTACT CAN CAUSE TISSUE DESTRUCTION, ULCERATION CEDING. MAY BE ABSORBED THROUGH THE SKIN WITH EFFECTS AS THOSE AS FOR INGESTION SEEN AS CENTRAL NERVOUS SYSTEM DEPRESSION, BLOOD ABSURMALITIES, KIDNEY AND LIVER DAMAGE AND EVEN DEATH.
EYE CONTACT: CAUSES SEVERE IRRITATION SEEN AS TEARING, REDNESS, EXCESSIVE BLINKING, SWELLING AND A BURNING SENSATION. PROLONGED CONTACT CAN CAUSE

CORNEAL DAMAGE, BURNS AND POSSIBLE BLINDNESS.

INHALATION: CAUSES RESPIRATORY IRRITATION SEEN AS COUGHING AND SNEEZING. INHALATION OF VAPORS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION SEEN AS HEADACHE, DIZZINESS, NAUSEA, DROWSINESS, WEAKNESS, APATHY, SLURRED SPEACH, STUTTERING AND A STAGGERING GAIT.

INGESTION: CAUSES SEVERE IRRITATION TO THE MOUTH AND THROAT AND MAY CAUSE NAUSEA, VOMITING AND DIARRHEA. INGESTION OF LARGE AMOUNTS MAY CAUSE INCOORDINATION, NAUSEA, DIZZINESS, DROWSINESS, HEADACHES, MENTAL CONFUSION, SLURRED SPEECH AND STUPOR. MAY CAUSE BLOOD ABNORMALITIES, KIDNEY DAMAGE,

#### MATERIAL SAFETY DATA SHEET: BLUE BEAST

SECTION V - HEALTH HAZARD DATA (Continued) LIVER DAMAGE AND COMA. INJECTION AND SUBSEQUENT VOMITING OF THIS PRODUCT CAN LEAD TO ASPIRATION OF THE PRODUCT INTO THE LUNGS WHICH CAN CAUSE DAMAGE -Chronic (Long Term Exposure) UPON REPEATED OR PROLONGED CONTACT, THIS PRODUCT MAY CAUSE SEVERE IRRITATION AND MAY BE ABSORBED IN TOXIC AMOUNTS. EXCESSIVE INHALATION OF VAPORS MAY CAUSE NASAL AND RESPIRATORY IRRITATION AND CENTRAL NERVOUS SYSTEM EFFECTS AND ALSO THE PRESENCE OF BLOOD IN THE URINE. INGESTION MAY BE HARMFUL WITH SYMPTOMS SIMILAR TO INTOXICATION, THE SEVERITY OF WHICH DEPENDS ON THE AMOUNT INGESTED. ABSORPTION THROUGH THE SKIN OR LUNGS FROM REPEATED/PROLONGED SKIN CONTACT OR INHALATION MAY CAUSE LIVER ABNORMALITIES, KIDNEY OR LUNG DAMAGE, SPLEEN DAMAGE, BLOOD ABNORMALITIES, WEIGHT LOSS, ANOREXIA AND TESTIS DAMAGE. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA AND DERMATITIS AND PRE-EXISTING DISEASES AND DISORDERS OF THE KIDNEYS, LIVER, LUNGS, SPLEEN, BLOOD AND TESTES. TARGET ORGANS: LIVER, KIDNEYS, LUNGS, BLOOD, SPLEEN AND TESTES. X <--Absorption Primary Routes of Entry: X <---Inhalation <--Ingestion Emergency and First Aid Procedures: -Inhalation: REMOVE FROM THE AREA TO FRESH AIR. SEEK MEDICAL ATTENTION IF RESPIRATORY IRRITATION DEVELOPS OR IF BREATHING BECOMES DIFFICULT. -Eye Contact: IMMEDIATELY RINSE THE EYES WITH WATER, REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING FOR AT LEAST 15 MINUTES. HOLD THE EYELIDS APART TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYES AND LIDS WITH WATER. GET IMMEDIATE MEDICAL ATTENTION. IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES. WASH AFFECTED AREAS THOROUGLY WITH LARGE AMOUNTS OF SOAP AND WATER FOR AT LEAST 15 MINUTES. GET IMMEDIATE MEDICAL ATTENTION. DISCARD OR CLEAN CLOTHING AND SHOES. -Ingestion:
GIVE 3 TO 4 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING. IF VOMITING OCCURS, GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. -Notes to Physician: ORGANIC ABNORMALITIES RESULTING FROM OVEREXPOSURE TO ETHYLENE GLYCOL MONOBUTYL ETHER BY ANY ROUTE LIKELY WOULD BE AN ABNORMAL BLOOD PICTURE CHARACTERIZED BY ERYTHROPENIA, RETICULOCYTOSIS, GRANULOCYTOSIS AND LEUKOCYTOSIS. INGESTION AND SUBSEQUENT VOMITING OF THIS PRODUCT CAN LEAD TO ASPIRATION OF THE PRODUCT INTO THE LUNGS WHICH CAN CAUSE DAMAGE AND MAY BE FATAL. DEPENDING ON THE AMOUNT INGESTED AND RETAINED AS WELL AS THE TOXICITY OF THE PRODUCT, GASTRIC LAVAGE SHOULD BE CONSIDERED. KEEP PATIENT'S HEAD BELOW HIPS TO PREVENT PULMONARY ASPIRATION. IF COMATOSE, A CUFFED ENDOTRACHAEL TUBE WILL PREVENT ASPIRATION. SECTION VI - TOXICITY INFORMATION Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By LARC--> Yes NTP--> No OSHA--> No ACGIH--> No OTHER --- No SAFROL SKN-RBT SDT: 500MG/24H MOD SKN-RBT LD50: > 5GM/KG ORL-RAT LD50: 1950 MG/KG ORL-RBT LDLo: 1 GM/KG ORL-RAT TDLo: 200 G/KG/94W-C CARCINGGENIC DATA: PRODUCT CONTAINS <1% SAFROL WHICH HAS BEEN FOUND TO BE A CARCINGGEN IN ANIMALS. ITS EFFECT ON HUMANS IS UNKNOWN ALTHOUGH SAFROL HAS BEEN PROHIBITED FOR USE IN HUMAN FOODS BY THE FDA. MONOETHANOLAMINE ORL-RAT LD50: 1720 MG/KG SKN-RBT LD50: 1 ML/KG SKN-RBT SDT: 505 MG/ MODERATE

SKN-RBT (OPEN): 505 MG MODERATE 3. EYE-RBT SDT: 250 UG SEVERE 4. LHL-MUS LD50: > 2420 MG/M3/24H 3. 4. ORL-RAT LDLo: 115 G/KG/90D-I: CHANGES IN LIVER AND BLADDER WEIGHTS 3.
IHL-RAT FEMALE TCLo: 25 PFM/6H 6-15D AFTER CONCEPTION: UROGENITAL ABNORMALITIES 3.

STHYLENE GLYCOL MONOBUTYL ETHER SKN-RBT (OPEN): 500 MG MILD 3. EYE-RET SDT: 100 MG SEVERE ORL-RAT LD50: 470 MG/KG SKN-RBT LD50: 220 MG/KG 450 PPM/4H 3. 100 PPM/6H (6-18D PREG): TER 3. IHL-RAT LC50: IHL-RAT TCLO: ALTHOUGH THE LISTED EFFECTS WERE OBSERVED IN LABORATORY ANIMALS UPON

INHALATION OF THIS MATERIAL, STUDIES HAVE ALSO SUGGESTED THAT THERE IS LITTLE POSSIBILITY OF SIGNIFICANT ADVERSE HEALTH EFFECTS IN HUMANS EXPOSED IN THE WORKPLACE TO LEVELS THAT COMPLY WITH THE OSHA PERMISSIBLE

EXPOSURE LIMIT OF 25 PPM. AT 100 PPM SOME SUBJECTIVE COMPLAINTS WERE SEEN IN SENSITIVE INDIVIDUALS, AND EVEN AT 200 PPM THE PRIMARY COMPLAINT WAS IRRITATION. THIS APPEARS TO BE ONE OF THE FEW MATERIALS TO WHICH THE HUMAN IS MORE RESISTANT THAN THE USUAL EXPERIMENTAL ANIMALS. 5.

INHALATION EXPOSURE TO ETHYLENE GLYCOL MONOBUTYL ETHER PRODUCED SOME EVIDENCE OF CANCER IN MICE IN A LONG-TERM BIOASSAY, NO EVIDENCE OF CANCER IN MALE RATS AND EQUIVOCAL EVIDENCE IN FEMALE RATS.

NONYLPHENOL POLYETHYLENE GLYCOL ETHER ORL-RAT LD50: 1.3 G/KG 4. SKN-RBT LD50: 2 ML/KG/24HR OCCLUDED 4.

SKN-RET: NO IRRITATION (UNCOVERED) EYE-RBT: 0.5 ML @ 5% DILUTION (SEVERE CORNEAL INJURY)

CONTAINS SURFACTANT WHICH, BASED ON STUDIES WITH RABBITS INVOLVING THE SUSTAINED OCCLUDED CONTACT OF THE UNDILUTED SURFACTANT WITH SKIN, INDICATE THAT SUCH CONDITIONS MAY RESULT IN THE DEVELOPMENT OF INFLAMMATORY CHANGES IN THE LUNG. SEVERAL STUDIES HAVE RESULTED IN SLIGHTLY INCREASED KIDNEY WEIGHTS IN MALE RATS CONTINUOUSLY EXPOSED TO NON'LPHENOL AT DIETARY CONCENTRATIONS OF 200 PPM OR GREATER. TUBULAR DEGENERATION WAS OBSERVED AT 650 AND 2000 PPM.

VOC CONTENT: 20.4% OR 1.7 LB/GAL

SECTION VII - REACTIVITY DATA

X <--Stable Conditions to Avoid: NOME KNOWN.

<--Unstable

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#### SECTION VII - REACTIVITY DATA (Continued)

Incompatibility (Materials to Avoid):

STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE; ACIDS, ALKALIES, ALDEHYDES, KETONES, ACRYLATES, ORGANIC ANHYDRIDES AND ORGANIC HALIDES, MATERIALS REACTIVE WITH HYDROXYL COMPOUNDS.

tous Decomposition Products:

OF CARBON AND NITROGEN AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS.

Hazardous Polymerization: Conditions to Avoid:

<--May Occur

X <---Will Not Occur

NONE KNOWN.

SECTION VIII - SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled:
WEAR APPROPRIATE PROTECTIVE CLOTHING. USE CARE AS SPILLS MAY BE SLIPPERY. DIKE AND CONTAIN SPILL, ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. PREVENT PRODUCT FROM CONTAMINATING SOIL OR FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS AND BODIES OF WATER. FLUSH AREA WITH WATER.

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

Neutralizing Agent:

NONE KNOWN.

SECTION IX - SPECIAL PROTECTION INFORMATION

Required Ventilation:

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM VAPORS.

A NIOSH/MSHA APPROVED RESPIRATOR FOR EXPOSURE ABOVE THE ACGIH TLV OR OSHA PEL OR WHERE MISTING EXISTS.

NEOPRENE OR NITRILE RUBBER GLOVES SHOULD BE WORN.

CHEMICAL GOGGLES SHOULD BE WORN WHEN HANDLING.

WEAR PROTECTIVE CLOTHING WHEN HANDLING. A SAFETY SHOWER AND AN EYEWASH STATION SHOULD BE AVAILABLE.

SECTION X - STORAGE AND HANDLING INFORMATION

Storage Temperature: Minimum Temperature: 35°F

Indoors--> X Maximum Temperature: 120°F

Heated-->

Precautions to be Taken in Handling and Storing:
ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER, KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. KEEP FROM FREEZING. IF PRODUCT FREEZES ALLOW IT TO SLOWLY WARM TO ROOM TEMPERATURE AND STIR THOROUGHLY BEFORE USING.

Other Precautions:

TRACES OF FREE ETHYLENE OXIDE MAY BE PRESENT IN THIS PRODUCT AND COULD ACCUMULATE IN THE HEADSPACE OF STORAGE AND TRANSPORT VESSELS. KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING THE PRODUCT.

### SECTION XI - REGULATORY INFORMATION

Chemical Name GLYCOL ETHERS

SAFROL

AS Number 94-59-7

Upper % Limit

Those ingredients listed above are subject to the reporting requirements of 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Please call 1-800-527-9919 for additional information if you are a California customer.

This MSDS is not intended for users in the state of California.

#### SECTION XII - REFERENCES

- 1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 2001.
- OSHA PEL.
- REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFODisc, 2001. VENDOR'S MSDS
- DISSOLVING THE MYTHS ABOUT EGBE AND HEALTH, CMA, GLYCOL ETHER PANEL, 1989.
- CHEMICAL MANUFACTURERS ASSOCIATION, NOVEMBER 9, 1998. ALL COMPONENTS IN THIS PRODUCT CAN BE FOUND IN THE CURRENT TSCA INVENTORY.

- IRR: IRRITANT, FLAM/FLAMM: FLAMMABLE, COMB: COMBUSTIBLE. CORR:CORROSIVE CARC:CARCINGGENIC, TOX:TOXIC, N/A:NOT APPLICABLE, N/E:NOT ESTABLISHED, COC:CLEVELAND OPEN CUP, PMCC:PENSKY-MARTIN CLOSED CUP, TCC:TAGLIABUE CLOSED CUP, LEI:LOWER EXPLOSION LIMIT, UEI:UPPER EXPLOSION LIMIT, NFPA:NATIONAL FIRE PROTECTION ASSOCIATION, LARC:INTERNATIONAL AGENCY FOR THE RESEARCH ON CANCER, NTP:NATIONAL TOXICOLOGY PROGRAM, OSHA:OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, ACGIH:AMERICAN CONFERENCE OF

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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