

MATERIAL SAFETY DATA SHEET: ND-66 (400#)

Section I - General Information

(000000-000000- - 4416)

Date of Issue:
7/18/2005 12:00:00 AM
Chemical Name & Synonyms:
N/A
Chemical Family:
ALKALINE\METALLIC BLEND
Manufacturer Name:
CHEMSEARCH DIV. OF NCH CORP.
Manufacturer Address:
BOX 152170
IRVING, TX 75015

Supercedes:
8/4/2003 12:00:00 AM
Trade Name & Synonyms:
ND-66 (400#)
Formula is a mixture: [√]

Prepared By:
M McDowell/Chemist

Product Code Number:
4416

Emergency Phone Number:
800-424-9300

Section II - Hazardous Ingredients

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)	Hazard	TLV	PEL	STEL	CAS #
SODIUM HYDROXIDE	CORROSIVE	N/E 1	2 MG/M3 2	2 MG/M3 1	1310-73-2
SODIUM NITRATE	IRR/OX	N/E 1	5 MG/M3 \$2	N/E	7631-99-4
ALUMINUM	IRRITANT	10 MG/M3#1	5 MG/M3 *2	N/E	7429-90-5
SYNTHETIC ISOPARAFFINIC HYDROCARBON	IRRITANT	5 MG/M3 +1	5 MG/M3 +2	10 MG/M3+1	64742-47-8
\$ PNOR					
# METAL DUST					
* RESPIRABLE FRACTION					
+ OIL MIST VALUES					

Section IIa - Non-Hazardous Ingredients

(NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE)

Secret Registry #: 409363 - 5082P

Section III - Physical Data

Boiling Point (°F):N/A
Vapor Pressure (mm Hg):0.7
Vapor Density (Air=1):6.7
pH @ 100% :14 @ 10%
% Volatile by Volume:4.1
H₂O Solubility:APPRECIABLE

Specific Gravity (H₂O=1):1.18
Color:BLUE
Odor:ODORLESS
Clarity:OPAQUE
Evaporation Rate (BuAc=1):<0.01
Viscosity:GRANULES

Section IV - Fire and Explosion Hazard

Flash Point:NON-FLAM
Flammable Limits:HYDROGEN GAS
LEL:4%

Method Used:SETAFLASH

UEL:75%

Aerosol Level (NFPA 30B):N/A

Extinguishing Media:

[] Foam [] Alcohol Foam [] CO2
[√] Dry Chemical [] Water Spray [√] Other

NFPA 704 Hazard Rating:

4-Extreme Health: 3
3-High Flammability: 1
2-Moderate Instability: 1
1-Slight Special: W*
0-Insignificant

Special Fire Fighting Procedures:

FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. CONTAIN FIRES WITH DRY SAND BY CREATING A RING USING NON-SPARKING EQUIPMENT. ALLOW THE FIRE TO CONSUME ITSELF. DO NOT USE WATER OR HALOGENATED EXTINGUISHING AGENTS.

Unusual Fire and Explosion Hazards:

NOT COMBUSTIBLE, BUT SUBSTANCE IS A STRONG OXIDIZER AND ITS HEAT OF REACTION WITH REDUCING AGENTS OR COMBUSTIBLES MAY CAUSE IGNITION. DO NOT USE WATER TO EXTINGUISH FIRES WHERE THIS PRODUCT IS INVOLVED AS WATER WILL CAUSE A VIOLENT OR EXPLOSIVE REACTION. PROLONGED CONTACT WITH REACTIVE METALS, SUCH AS ALUMINUM, COPPER, BRASS, BRONZE, CHROMIUM, MAGNESIUM, TIN, ZINC, AND ALLOYS, CAN CAUSE THE FORMATION OF FLAMMABLE HYDROGEN GAS WHICH CAN FORM AN EXPLOSIVE MIXTURE WITH AIR.

Section V - Health and Hazard Data

Threshold Limit Value:

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

Effects of Overexposure:

Acute: (Short Term Exposure)

THIS PRODUCT MAY REACT WITH MATERIALS IN THE SEWER TO FORM POTENTIALLY HAZARDOUS GASES. VIOLENT ERUPTIONS, HARMFUL GASES, OR CORROSIVE SPLASHBACK CAN RESULT. EYE CONTACT: CORROSIVE. CAUSES BURNS, CORNEAL DAMAGE, AND POSSIBLE BLINDNESS. SKIN CONTACT: CORROSIVE. CAUSES BURNS, POSSIBLE DEEP ULCERATIONS, AND SCARRING. PROLONGED CONTACT DESTROYS TISSUE. INHALATION: DUST, MIST, AND VAPORS CAUSE BURNS TO THE RESPIRATORY TRACT, NOSE, MOUTH, AND THROAT, WITH DISCOMFORT, NASAL DISCHARGE, SNEEZING, COUGHING, RAPID HEARTBEAT, AND CHEST PAIN. INHALATION OF MIST OR VAPORS MAY CAUSE CHEMICAL PNEUMONITIS WHICH CAN CAUSE DAMAGE AND MAY BE FATAL. EXPOSURE TO FUMES DURING A FIRE MAY CAUSE "METAL FUME FEVER" SEEN AS INFLUENZA-LIKE SYMPTOMS INCLUDING CHILLS, FEVER, PERSPIRATION, CHEST PAIN, MUSCULAR WEAKNESS, HEADACHES, NAUSEA, AND VOMITING. SYMPTOMS MAY BE DELAYED 1-3 HOURS AFTER EXPOSURE. INGESTION: CORROSIVE. CAUSES BURNS TO THE MOUTH, THROAT, ESOPHAGUS, AND STOMACH WITH NAUSEA AND PAIN. SYMPTOMS MAY INCLUDE VOMITING OF BLOOD. BLOOD LOSS THROUGH DAMAGED TISSUE CAN LEAD TO LOW BLOOD PRESSURE AND SHOCK AND MAY BE FATAL.

Chronic: (Long Term Exposure)

DUE TO THE CORROSIVE NATURE OF THIS PRODUCT PROLONGED OR REPEATED EXPOSURE CANNOT OCCUR. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE ARE PRE-EXISTING RESPIRATORY AND SKIN CONDITIONS SUCH AS ASTHMA, EMPHYSEMA, AND DERMATITIS. TARGET ORGANS: NONE KNOWN. THERE IS NO PRIMARY ROUTE OF ENTRY INTO THE BODY. THE PRIMARY ROUTES OF EXPOSURE ARE SKIN AND EYE CONTACT.

Primary Routes of Entry

Inhalation Ingestion Absorption

Emergency First Aid Procedures:

Inhalation:
 IF DUST IS INHALED, REMOVE FROM THE AREA TO FRESH AIR. HAVE THE PERSON BLOW THEIR NOSE TO REMOVE THE SUBSTANCE FROM THE NASAL PASSAGES AND KEEP FROM INHALING FURTHER. IF NOT BREATHING, CLEAR THE AIRWAY AND START MOUTH-TO-MOUTH ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

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.

Skin Contact:
 IMMEDIATELY WIPE AWAY MATERIAL WITH A CLOTH WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. WASH THOROUGHLY 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:
 THERE IS NO SPECIFIC ANTIDOTE. TREAT THE PATIENT SYMPTOMATICALLY. PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE. MEASURES AGAINST CIRCULATORY SHOCK, RESPIRATORY DEPRESSION, AND CONVULSIONS MAY BE NEEDED.

Section VI - Toxicity Information

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

IARC NTP OSHA ACGIH Other

VOC CONTENT: 1.5% BY WEIGHT; 17.7 G/L

SODIUM HYDROXIDE
 ORL-MSE LD50: 40 MG/KG 3.
 ORL-RBT LDLo: 500 MG/KG 3.
 SKN-RBT TCLo: 25 PPH 3.
 SKN-RBT SDT: 500 MG/24H SEVERE 3.
 EYE-RBT SDT: 1 MG/24H SEVERE 3.

SODIUM NITRATE
 ORL-RAT LD50: 1267 MG/KG 3.
 ORL-HMN(WMN) TDLo: 14 MG/KG 3.

ALUMINUM
 IHL-RAT TCLo: 206 MG/M3/5H/30D-I 3.
 IHL-HMN TCLo: 4 MG/M3/1Y-I 3.

SYNTHETIC ISOPARAFFINIC HYDROCARBON
 IHL-RAT LC50: >290 PPM 3.
 ORL-RAT LD50: >10 G/KG 3.
 SKN-RBT LD50: >3 G/KG 3.
 SKN SENSITIZER: NO 3.
 SKN IRRITATION: SLIGHT 3.
 EYE IRRITATION: SLIGHT 3.

THIS HYDROCARBON WAS ADMINISTERED ORALLY 5 DAYS/WEEK TO MALE AND FEMALE RATS AT 100, 500 OR 1000 MG/KG FOR 13 WEEKS. AN ADDITIONAL GROUP WAS DOSED WITH 100 MG/KG FOR 13 WEEKS FOLLOWED BY A 4-WEEK RECOVERY PERIOD. NO MORTALITIES OR CLINICAL EFFECTS WERE OBSERVED. LIVER AND KIDNEY WEIGHTS FOR THE 500 AND 1000 MG/KG EXPOSURE GROUPS WERE SIGNIFICANTLY INCREASED. AFTER THE 4-WEEK RECOVERY PERIOD, THERE WERE NO DIFFERENCES IN ORGAN WEIGHTS. 3.

Section VII - Reactivity Data

Stability

Stable Unstable

Conditions to Avoid:
 HEAT GENERATION INCLUDING IGNITION MAY OCCUR IF PRODUCT IS DAMP OR EXPOSED TO WATER. SOME POROUS MATERIALS SUCH AS RAGS, PAPER, ETC. WHEN COMBINED WITH SODIUM NITRATE MAY UNDERGO SPONTANEOUS COMBUSTION.

Hazardous Polymerization

Will not occur May occur

Conditions to Avoid:
 N/A

Incompatibility (Materials to Avoid):
 STRONG OXIDIZING AGENTS SUCH AS CHLORINE BLEACH AND CONCENTRATED HYDROGEN PEROXIDE. REDUCING AGENTS SUCH AS SODIUM THIOSULFATE; ACIDS, ALDEHYDES AND OTHER ORGANIC MATERIALS, WATER, LEATHER, WOOL, MINERAL ACIDS, AND HALOGENATED COMPOUNDS. JUTE, WOOD, AND SIMILAR CELLULOSIC MATERIALS CAN BECOME HIGHLY COMBUSTIBLE BY NITRATE IMPREGNATION. REACTS WITH ACID TO EMIT TOXIC NITROGEN DIOXIDE. MAY REACT EXPLOSIVELY WITH BARIUM RHODANIDE, BORON PHOSPHIDE, CYANIDES, SODIUM HYPOPHOSPHITE, SULFUR PLUS CHARCOAL, POWDERED ALUMINUM, AND ALUMINUM OXIDE. PROLONGED CONTACT WITH REACTIVE METALS, SUCH AS ALUMINUM, COPPER, BRASS, BRONZE, CHROMIUM, MAGNESIUM, TIN, ZINC, AND ALLOYS, CAN CAUSE THE FORMATION OF FLAMMABLE HYDROGEN GAS WHICH CAN FORM AN EXPLOSIVE MIXTURE WITH AIR. HAZARDOUS CARBON MONOXIDE GAS CAN FORM UPON CONTACT WITH REDUCING SUGARS, FOOD AND BEVERAGE PRODUCTS.

Hazardous Decomposition Products:
 OXIDES OF CARBON AND NITROGEN; METAL OXIDES, AND EXPLOSIVE HYDROGEN GAS.

Section VIII - Spill Or Leak Procedures

Steps to be Taken if Material is Released or Spilled:
 ELIMINATE IGNITION SOURCES OF ELECTRICAL, STATIC, OR FRICTIONAL SPARKS. VENTILATE THE CONTAMINATED AREA AND AVOID CREATING DUSTY CONDITIONS. WEAR APPROPRIATE PROTECTIVE CLOTHING. TRANSFER SOLID USING NON-SPARKING EQUIPMENT INTO A PROPERLY LABELED CONTAINER FOR REUSE OR DISPOSAL. ONCE ALL MATERIAL HAS BEEN REMOVED, IF NECESSARY WASH AREA WITH WATER AND PICK UP WASH WATER FOR DISPOSAL. PREVENT PRODUCT FROM CONTAMINATING SOIL OR FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS AND BODIES OF WATER.

Waste Disposal Method(s):
 DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

Neutralizing Agent:
 USE DILUTE ACIDS SUCH AS HYDROCHLORIC ACID OR VINEGAR. ADD CAUTIOUSLY WHILE MIXING. WEAR APPROPRIATE PROTECTIVE CLOTHING.

Section IX - Special Protection Information

Required Ventilation:

MATERIAL SAFETY DATA SHEET: ND-66 (400#)

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE DUSTY CONDITIONS OR VAPORS. LOCAL VENTILATION IS PREFERRED, BECAUSE IT PREVENTS DISPERSION INTO WORK AREAS BY CONTROLLING IT AT ITS SOURCE.

Respiratory Protection:

WEAR A NIOSH/MSHA APPROVED RESPIRATOR WITH A DUST CARTRIDGE FILTER IF EXPOSURE CAN EXCEED TLV/PEL. <10X PEL, USE AN N95 QUARTER OR HALF MASK RESPIRATOR; <50X PEL, USE A FULL FACE RESPIRATOR EQUIPPED WITH N95 FILTERS; <200X PEL, USE A POWDERED AIR PURIFYING RESPIRATOR (POSITIVE PRESSURE) WITH N95 FILTERS; >200X PEL, USE A FULL FACE, TYPE C SUPPLIED AIR RESPIRATOR (CONTINUOUS FLOW MODE). RESPIRATORS SHOULD BE SELECTED BY AND USED UNDER THE DIRECTION OF A TRAINED HEALTH AND SAFETY PROFESSIONAL FOLLOWING REQUIREMENTS FOUND IN OSHA'S RESPIRATOR STANDARD (29 CFR 1910.134) AND ANSI'S STANDARD FOR RESPIRATORY PROTECTION (Z88.2-1992).

Glove Protection:

NEOPRENE OR NITRILE RUBBER GLOVES SHOULD BE WORN. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR HAND PROTECTION, 29 CFR 1910.138.

Eye Protection:

CHEMICAL GOGGLES AND A FACE SHIELD SHOULD BE WORN. ENSURE COMPLIANCE WITH OSHA'S PERSONAL PROTECTIVE EQUIPMENT (PPE) STANDARD FOR EYE AND FACE PROTECTION, 29 CFR 1910.133.

Other Protection:

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

Section X - Storage and Handling Information

Storage Temperature	Storage Conditions
Max: 120°F Min: 35°F	<input checked="" type="checkbox"/> Indoors <input type="checkbox"/> Outdoors <input type="checkbox"/> Heated <input type="checkbox"/> Refrigerated

Precautions to be Taken in Handling and Storing:

ALWAYS STORE MATERIAL IN ITS ORIGINAL CONTAINER. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. AVOID CREATING DUSTY CONDITIONS. SEAL OPEN CONTAINERS IMMEDIATELY. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUES WHICH MAY EXHIBIT THE HAZARDS OF THE PRODUCT.

Other Precautions:

KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING THE PRODUCT. FOLLOW THE LABEL DIRECTIONS.

Section XI - Regulatory Information

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Upper % Limit</u>
ALUMINUM	7429-90-5	5

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, 2005. 3. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, CCINFWeb, 2005. 4. VENDOR'S MSDS. ALL THE COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT (TSCA) AND ARE EITHER LISTED ON THE TSCA INVENTORY OR OTHERWISE EXEMPTED FROM LISTING. - IRR:IRRITANT, FLAM/FLAMM:FLAMMABLE, COMB:COMBUSTIBLE, CORR:CORROSIVE CARC:CARCINOGENIC, TOX:TOXIC, N/A:NOT APPLICABLE, N/E:NOT ESTABLISHED, COC:CLEVELAND OPEN CUP, PMCC:PENSKY-MARTIN CLOSED CUP, TCC:TAGLIABUE CLOSED CUP, LEL:LOWER EXPLOSION LIMIT, UEL:UPPER EXPLOSION LIMIT, NFPA:NATIONAL FIRE PROTECTION ASSOCIATION, IARC:INTERNATIONAL AGENCY FOR THE RESEARCH ON CANCER, NTP:NATIONAL TOXICOLOGY PROGRAM, OSHA:OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, ACGIH:AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS, TLV:THRESHOLD LIMIT VALUE, PEL:PERMISSIBLE EXPOSURE LIMIT, STEL:SHORT-TERM EXPOSURE LIMIT, MLD:MILD, MOD:MODERATE, SEV:SEVERE, MUT:MUTAGENIC, ASPHYX:ASPHYXIANT, PNOR:PARTICULATES NOT OTHERWISE REGULATED, SDT:STANDARD DRAIZE TEST, ORL:ORAL, IHL:INHALATION, HMN:HUMAN, W*:WATER REACTIVE

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