MATERIAL SAFETY DATA SHEET

1- PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME: Tarene® 20-N
SYNONYMNS: Blend of tall oil and naphthenic process oil
Validated on: February 12, 2009

NATROCHEM, INC.
P.O. Box 1205
Savannah, GA 31402-1205

For Product Information (8 a.m. to 4 p.m. Eastern time) telephone: 1-912-236-4464

Transportation Emergencies:
CHEMTREC (U.S.A.): (800) 424-9300 (24 hours)
CHEMTREC (International): (202) 483-7616 (24 hours, call collect)

2 – HAZARDS IDENTIFICATION

Physical State:	Liquid
Odor:	Bland. Smoke.
Color:	Brown
OSHA/HCS status	This material is considered hazardous by 29CFR1910.1200
Emergence overview:	Caution! May cause damage to eyes.
Routes of entry:	Eye contact; inhalation; ingestion.
Potential acute health effects:	No know significant effects or critical hazards concerning the eyes, skin, inhalation or ingestion.
Potential chronic health effects:	No know significant carcinogenic, mutagenic or teratogenic effects. May cause damage to the following organs: eyes.
Medical conditions aggravated by over-exposure:	Repeated or prolonged exposure to the substance can produce target organ damage.
Over=exposure signs/symptoms:	Repeated or prolonged exposure to the substance cans product target organ damage.

3 - COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredient Name:	CAS#
Tall Oil Pitch	8016-81-7
Severely Hydrotreated Heavy Naphthenic Distillate	64742-52-5
Severely Hydrotreated Light Naphthenic Distillate	64742-53-6

4 - FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

SKIN CONTACT: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

INHALATION: Move exposed person to fresh air. Do not induce vomiting un less directed by a physician. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

INGESTION: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick, as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

PROTECTION OF FIRST-AIDERS: No action shall be taken involving any personal risk or without suitable training.

5 – FIRE FIGHTING MEASURES

PRODUCTS OF COMBUSTION: Emits acrid smoke and irritating fumes when heated to decomposition. The products are carbon oxides such as CO and CO2.

FLASH POINT: 193°C (380°F) Cleveland

EXTINGUISHING MEDIA: Use extinguishing agent suitable for the surrounding fire. Use alcohol foam, carbon dioxide, water fog, dry chemical, or halon when fighting fires involving this material.

SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear in positive pressure mode. Cool containers with water if exposed to fire.

UNUSUAL FIRE & EXPLOSION HAZARDS: Can form explosive mixtures at temperatures at or above the flashpoint. If product is misted, the minimum flash point may be reduced.

6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: MINIMIZE SPILL AREA. Shut off leak if safe to do so. Dike area, recover and reclaim material if possible.

PERSONAL PRECAUTIONS: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

ENVIRONMENTAL PRECAUTIONS: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.
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METHODS FOR CLEANING UP: If emergency personnel are unavailable, vacuum or careful scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal. Absorb the liquid on material such as sand, vermiculite, or other inert, noncombustible absorbent and place in clean, dry containers suitable for disposal. Containers should be closed and segregated for later disposal. Scrub the area with detergent and water.

WASTE DISPOSAL METHOD: In accordance with local, state, and federal regulations.

7 – HANDLING AND STORAGE

HANDLING AND STORAGE: Minimize skin and eye exposure. Wear gloves and safety goggles. Use with adequate ventilation. Avoid breathing dust or hot vapors. Wash thoroughly after handling. Stainless or carbon steel vessel is recommended for storage. Do not use pressure or apply heat with open flame to remove material from drums. Positive displacement or Centrifugal pump, and steam traced lines are recommended for bulk transfer.

OTHER PRECAUTIONS: Wash with soap and water before eating, drinking, smoking, or using toilet facilities. Launder contaminated clothing before reuse.
STORAGE: Keep container tightly closed. Keep container in a cool well-ventilated area

8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

PARTICULATES: (Not otherwise regulated)

OSHA PEL

TWA: 15 mg/m^3 (Total particulates)
TWA 5 mg/m^3 (Respirable Particulate)

ACGIH TLV

TWA: 10 mg/m^3 (Inhalable particulates not otherwise specified)
TWA: 2 mg/m^3 (Respirable particulate not otherwise specified)

EFFECTS OF EXPOSURE-

Component	Exposure Limits*	Amount%
Severely hydrotreated heavy naphthenic distillate CAS#64742-52-5	PEL*5 mg/m^3 TLV* 5mg/m^3	~7
Severely hydrotreated light naphthenic distillate CAS#64742-53-6	PEL *5 mg/m^3 *TLV 5 mg/m^3	~3

*oil mist, mineral

ENGINEERING MEASURES: No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosure, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

RESPIRATORY PROTECTION: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SKIN: Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
>8 hour / hours breakthrough time: When handling hot material wear heat-resistant protective gloves that are able to withstand the temperature of molten product. Personal protective equipment of the body should be selected based on the tasks being performed and the risks involved and should be approved by a specialist before handling this product.

EYE PROTECTION: Use safety glasses with side-shields or splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

OTHER PROTECTION: Protective clothing, eye wash station, safety shower. Wash hands forearms and face thoroughly after handling. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Flash Point: 193°C (380°F) COC
Boiling Point: >200°C (392°F)
Vapor Pressure (mm Hg): Nil
Vapor Density (Air = 1): Heavier than air
Solubility in Water: Negligible
Appearance: Dark brown
Moisture: 0.1%
Specific Gravity: 0.972
Percent Volatiles: 0
Evaporation Rate: <1 (Ether = 1)
Odor: bland; smoky

10 – STABILITY AND REACTIVITY

STABILITY: Stable.
MATERIALS TO AVOID- Oxidizing materials.
CONDITIONS TO AVOID- Strong oxidizing and alkali agents. Very high temperatures and open flames.
HAZARDOUS DECOMPOSITION PRODUCTS: Under normal conditions of storage and use, hazardous decomposition products should not be produced. The material will burn in a fire, releasing combustion products which may be toxic, including oxides of carbon and smoke.
HAZARDOUS POLYMERIZATION: Will not occur.

11 – TOXICOLOGICAL INFORMATION

TARGET ORGAN: May cause damage to the eyes.

SPECIFIC EFFECTS:	No known significant effects or critical hazards.
Carcinogenic	No known significant effects or critical hazards.
Mutagenic	No known significant effects or critical hazards.
Teratogenicity/Reproductive toxicity:	No known significant effects or critical hazards.

IRRITANT/SENSITIZER

Ingestion	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Eyes	No known significant effects or critical hazards.
Skin	No known significant effects or critical hazards.

12 – ECOLOGICAL INFORMATION

ENVIRONMENTAL PRECAUTIONS:	No known significant effects or critical hazards.
PRODUCTS OF DEGRADATION:	These products are carbon oxides (CO, CO2) and water.

13 – DISPOSAL CONSICERATIONS

WASTE DISPOSAL: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

RCRA CLASSIFICATION: Description: Non-hazardous waste.

This information applies to the material as supplied. The identification based on characteristics or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

14 – TRANSPORTATION INFORMATION

DOT Classification:	(bulk) UN3257
Proper shipping name:	Elevated temperature liquid n.o.s.
Class	9
PG	III
Remarks	Label: Hot
IATA-DGR Class:	Not regulated.
IMDG Class:	Not regulated.

15 – REGULATORY INFORMATION

HCS Classification: Target organ effects.

US Federal Regulations:

SARA 302/304/311/312 extremely hazardous substances: Not applicable
SARA 203/304 emergency planning and notification: Not applicable
SARA 302/304/311/312 hazardous chemicals: Not applicable
SARA 311/312:

Name of Chemical	Hazard	Percent in Product
Tall Oil Pitch	Acute	~85%

California Prop 65: The required chemical analyses and risk assessments for Tall oil pitch were performed and results indicate that there are no significant risks or observable effects as defined by this statute, associated with this product under conditions of normal use.

Canada: Not controlled under WHMIS
Canada: No products found Canadian NPRI

CHEMICAL INVENTORIES:
United States: The components of this product are TSCA listed.
Canada: The components of this product are DLSL listed or acceptable under CEPA registration regulations
Europe: The components of this product are EINECS listed.
Australia: The components of this product are AICS listed
Japan: The components of this product are ENCS listed.
China: The components of this product are on the Chinese IECSC.
South Korea: The components of this product are ECL Listed.
Philippines: The components of this product are PICCS listed.
Switzerland: The components of this product are acceptable.

16 - OTHER INFORMATION

HMIS 1 1 0 Personal protection C NFPA 1 1 0

Revision Date: February 12, 2009
Previous Revision Date: October 29, 2008
Revision Note: Updated section 15 TSCA
Prepared by: Craig Moore

N/A=Not applicable; N/D=Not determined; N/DA=No Data Available; N/E=Not established; PEL=permissible exposure limit; TLV=threshold limit value; TWA=time weighted average