

MATERIAL SAFETY DATA SHEET

PETRO AMSOL 120 / PETRO AMSOL 120 (R66)

Quick Identifier

SECTION 1 CHEMICAL PRODUCT NAME / COMPANY I.D.

Manufacturer/Supplier:	The Jankovich Company	Emergency Telephone No:	(310) 547-3305
Address:	14066 Garfield Ave.	Other Information Calls:	(800) 650-0200
City, State, zip:	Paramount, CA 90723	PERS EMERGENCY #:	(800) 633-8253
		Date Prepared:	8-Jun-05

PRODUCT: PETRO AMSOL 120, PETRO AMSOL 120 (R66)
TRADE NAMES/SYNONYMS: MINERAL SPIRITS, SOLVENT NAPHTHA
CHEM NAME: PETROLEUM HYDROCARBON MED ALIPHATIC
CHEM FAMILY: HYDROCARBON SOLVENT, PETROLEUM HYDROCARBON

SECTION 2 PRODUCT / INGREDIENT

NO. COMPOSITION	CAS	PERCENT
P PETRO AMSOL 120 / PETRO AMSOL 120 (R66)		
1 MINERAL SPIRITS	64742-88-7	100

PHYSICAL DESCRIPTION: Clear, white liquid with a slight hydrocarbon odor

NFPA HAZARD RATING: HEALTH: 1 FIRE: 2 REACTIVITY: 0
(Scale 0 - 4)

SECTION 3 HEALTH INFORMATION

The health effect noted below are consistent with requirements under the OSHA Hazard Communication Standard (29 CFR 1910.1200)

EMERGENCY OVERVIEW:

MAJOR HEALTH HAZARDS: Central nervous system depression.

EYE CONTACT:

Short Term Exposure: Product produces irritation to the eyes.

Long Term Exposure: No information on significant adverse effects.

SKIN CONTACT:

Short Term Exposure: No information on significant adverse effects.

Long Term Exposure: No information on significant adverse effects.

INHALATION:

Short Term Exposure: Irritation, nausea, headache, drunkenness.
Long Term Exposure: Nerve damage

INGESTION:

Short Term Exposure: Ingestion of product may result in nausea, vomiting diarrhea, difficulty breathing, drunkenness, cyanosis (bluish skin color), lung congestion, kidney damage.
Long Term Exposure: No information on significant adverse effects.

OTHER HEALTH EFFECTS:

This product and its components are not classified as carcinogens by International Agency For Research On Cancer (IARC), National Toxicology Program (NTP) or Occupational Safety And Health Administration (OSHA).

SECTION 4 PHYSICAL DATA

PHYSICAL STATE AND APPEARANCE

CLEAR, STRAW COLORED LIQUID. KEROSENE ODOR.

ODOR THRESHOLD

N/A

VAPOR DENSITY (AIR=1):

4 - 7

BOILING POINT (DEG F):

220-580° F

PH:

NO DATA AVAILABLE

VAPOR PRESSURE (MM HG):
< 0.1 - 1.5 psi @ 100° F

VOLATILITY:
NONE

SOLUBILITY (IN WATER):

NEGLIGIBLE

FREEZING POINT:

- 40 Deg F (- 40 C) (Liquid at room temperature)

SPECIFIC GRAVITY:

0.79 - 0.9 @ 60° F

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1):

0.04

MELTING OR SOLID POINT

N/A

SECTION 5 FIRE AND EXPLOSION HAZARDS

THE PRODUCT IS FLAMMABLE

FLASH POINT:

50 - 220° F

FLAMMABLE LIMITS / % VOLUME IN AIR:

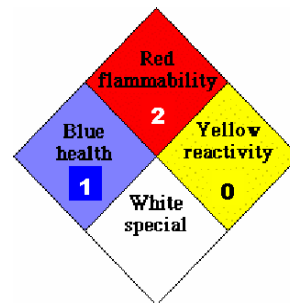
LOWER: 0.70%

UPPER: 6 %

AUTO-IGNITION TEMPERATURE

400° F

NFPA:



BASIC FIREFIGHTING PROCEDURES:

Flammable Liquid. Use dry chemical, foam or carbon dioxide to extinguish the fire. Consult foam manufacturer for appropriate media, application rates and water/foam ratio. Water can be used to cool fire-exposed containers, gas or vapor and to protect personnel. If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers.

FIRE DEGRADATION PRODUCTS:

Combustion may product carbon monoxide, carbon dioxide, sulfur oxides, and reactive hydrocarbons (aldehydes, aromatics, etc.) compounds.

FLAMMABILITY

Conditions to Avoid: Heat, sparks, open flame, static electricity or any other potential ignition sources should be avoided. Prevent vapor accumulation. Do not switch load.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Dangerous when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapor or gas may spread to distant ignition sources (pilot lights, welding equipment, electrical equipment, etc.) and flash back. Vapors may accumulate in low areas. Vapors may concentrate in confined areas. Flowing product can be ignited by self generated static electricity. Use adequate bonding and grounding to prevent static buildup. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Irritating or toxic substances may be emitted upon thermal decomposition. For fires involving this material do not enter any enclosed or confined space without proper protective equipment, which may include NIOSH approved self-contained breathing apparatus with full face mask. Clothing, rags, or similar organic material contaminated with this product and stored in a closed space may undergo spontaneous combustion. Transfer to and from commonly bonded and grounded containers.

FIREFIGHTING PROTECTIVE EQUIPMENT:

Full firefighting turn-out gear (bunker gear). Any supplied air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a escape supply. Any self-contained breathing apparatus with a full facepiece.

SECTION 6 STABILITY AND REACTIVITY

STABILITY: The product is stable

CONDITIONS AND MATERIAL TO AVOID: Avoid strong oxidizing agents (peroxide, dichromate, permanganate, chlorine, etc.) strong acids, caustics and halogens.

HAZARDOUS POLYMERIZATION: Will not occur

SECTION 7 HEALTH HAZARD INFORMATION & TOXICOLOGY

PRIMARY ROUTES OF ENTRY: Eye, or skin contact, Ingestion, Inhalation

Target Organs: Respiratory system, skin
Product listed as a Carcinogen or Potential Carcinogen by:
NTP-No IARC-no OSHA-no Other- NIOSH*

* NIOSH: Current Intelligence Bulletin 50 reports a potential occupational carcinogenic hazard exists due to human exposure to diesel exhaust fumes.

TLV

NAPHTHALENE

TWA: 10 (ppm) FROM OSHA-PEL (1999)
TWA: 10 (ppm) FROM NIOSH (1999)
TWA: 10 (ppm) STEL; 15 (ppm) FROM ACGIH (1999)
IDLH: 250 (ppm) FROM NIOSH (1999)

BENZENE

TWA: 1 (ppm) STEL; 5 (ppm) FROM OSHA-PEL (1999) SKIN
TWA: 0.5 (ppm) CEIL:2.5 (ppm) FROM ACGIH (1999) SKIN
TWA: 0.1 (ppm) ST:1 (ppm) FROM NIOSH-REL (1999) SKIN
IDLH: 500 (ppm) FROM NIOSH (1999)

CONSULT LOCAL AUTHORITIES FOR ACCEPTABLE EXPOSURE LIMITS

EFFECTS AND HAZARDS OF EYE CONTACT:

May cause severe irritation, redness, tearing, blurred vision and conjunctivitis

EFFECTS AND HAZARDS OF SKIN CONTACT:

Prolonged or repeated contact may cause moderate irritation, defatting (cracking), redness, itching, inflammation, dermatitis, and possible secondary infection. High pressure skin injections are **SERIOUS MEDICAL EMERGENCIES**. Injury may not appear serious at first. Within a few hours, tissues will become swollen, discolored and extremely painful. See Notes to Physician section.

EFFECTS AND HAZARDS OF INHALATION

Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes. NIOSH Current Intelligence Bulletin 50 reports a potential occupational carcinogenic hazard exists due to human exposure to diesel exhaust.

EFFECTS AND HAZARDS OF INGESTION

This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. **DO NOT INDUCE VOMITING**. Aspiration into lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting, and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

TOXICOLOGICAL INFORMATION

DIESEL EXHAUST FUMES have been reported to be a potential occupational carcinogen in humans by NIOSH Current Intelligence Bulletin 50

NAPHTHALENE can affect the body if it is inhaled, comes into contact with the eyes or the skin or if it is swallowed. Naphthalene vapor causes hemolysis and eye irritation, it may cause cataracts. Severe intoxication from ingestion of the solid results in characteristic manifestations of marked intravascular hemolysis and its consequences, including potentially fatal hyperkalemia. Initial symptoms include eye irritation, headache, confusion, excitement, malaise, profuse sweating, nausea, vomiting, abdominal pain, and irritation of the bladder. There may be progression to jaundice, hematuria, hemoglobinuria, renal tubular blockage, and acute renal shutdown. Hematologic features include red cell fragmentation, icterus, severe anemia with nucleated red cells, leukocytosis, and dramatic decreases in hemoglobin, hematocrit and red cell count; sometimes there is formation of Heinz bodies and methemoglobin, individuals with a deficiency of glucose-6-phosphate dehydrogenase in erythrocytes may be more susceptible to hemolysis by naphthalene. Cataracts and ocular irritation have been produced experimentally in animals and have been described in humans. Of 21 workers exposed to high concentration of fumes or vapor for 5 years, 8 had peripheral lens opacities; In other studies, no abnormalities of the eyes have been detected in workers exposed to naphthalene for several years. The vapor causes eye irritation at 15 ppm. Eye contact with the solid may result in conjunctivitis, superficial injury to the cornea, chorioretinitis, scotoma, and diminished visual acuity. Naphthalene on the skin may cause hypersensitivity dermatitis, chronic dermatitis is rare.

PETROLEUM DISTILLATES (naphtha, C₆H₁₄, C₆H₁₆, C₆H₁₈ aliphatics) can affect the body if they are inhaled, come in contact with the eyes or skin, or are swallowed. The vapors of petroleum distillates are mild narcotics and mucous membrane irritants. There have been few toxicological studies, either on animals or man. While 4,000 to 7,000 ppm are tolerated for 1 hour by human subjects, symptoms of narcosis, such as dizziness and drowsiness, occur at these concentrations. Continuing exposure may produce signs of inebriation, followed by headache or nausea. Exposure to 10,000 to 20,000 ppm is regarded as immediately hazardous to life. The higher boiling fractions may produce irritation of the eyes, nose, and throat in addition to symptoms of mild narcosis. No chronic systemic effects have been reported from widespread industrial use. If benzene is present in the distillate, however, the hazard of both acute and chronic poisoning is increased.

Lifetime skin painting studies conducted by the American Petroleum Institute, Exxon, and others have shown that similar products boiling between 175-370°C (350-700° F) usually produce skin tumors and /or skin cancer in laboratory mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The implications of these results for humans have not been determined.

Limited studies on oils that are very active carcinogens have shown that washing the animal's skin with soap and water between applications greatly reduces tumor formation. These studies demonstrate the effectiveness of cleansing the skin after contact.

If this material is handled as a refinery intermediate stream versus sold as a finished product, the following additional health hazard warning information may be pertinent.

BENZENE is considered to be a carcinogen to humans, and may cause adverse health effects following exposure via inhalation, ingestion, or dermal or eye contact. Acute inhalation of benzene by rats, mice or rabbits caused narcosis, spontaneous heart contractions (ventricular fibrillation) and death due to respiratory paralysis. Subchronic inhalation of benzene by rats produced decreased white blood cell counts, decreased bone marrow cell activity,

increased red blood cell activity and cataracts. In rats, chronic inhalation or oral administration of benzene produced cancers of the liver, mouth and Zymbal gland. Acute inhalation exposure of benzene in humans has caused nerve inflammation (polyneritis), central nervous system depression and cardiac sensitization. Chronic exposure to benzene has produced anorexia and irreversible injury to the blood forming organs. Effects include aplastic anemia and leukemia. Animal studies have demonstrated testicular effects, alterations in reproductive cycles, chromosomal aberrations and embryo/fetotoxicity. No birth defects have been shown to occur in pregnant laboratory animals exposed to doses not toxic to the mother.

TOXICITY TO ANIMALS DATA:

LD50: (ORAL-RAT) > 5 gm/kg of body weight; (DERMAL-RABBIT):>3.6 g/kg of body weight
LC50: Not available

REMARK: No additional remark.

SECTION 8 EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush eyes with large amounts of water, or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains, at least 15 minutes. Get medical attention if pain or redness continues.

SKIN CONTACT: Wash exposed area thoroughly with soap and water. (At least 10 minutes) Remove contaminated clothing, jewelry and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains. Contaminated leather goods should be discarded. If irritation persists or symptoms described in MSDS develop, seek medical attention. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Get immediate medical attention.

SLIGHT INHALATION: Remove victim to fresh air. If breathing is difficult, ensure clear airway and administer oxygen. If not breathing, apply artificial respiration or cardiopulmonary resuscitation. Keep person warm and at rest. Get medical attention immediately.

SLIGHT INGESTION: Never give anything by mouth to an unconscious person. DO NOT induce vomiting. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal. Give vegetable oil or charcoal slurry to retard absorption. If spontaneous vomiting occurs, keep head lower than hips to help prevent aspiration of liquid into lungs and monitor for breathing difficulty. SEEK IMMEDIATE MEDICAL ATTENTION. Keep person warm and quiet.

NOTE TO PHYSICIAN: For ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube, to prevent aspiration. Irregular heartbeat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of delayed effects, including bone marrow toxicity, hepatic, and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.

SECTION 9 PRECAUTIONARY MEASURES

RESPIRATORY PROTECTION:

If workplace exposure limits for product or components are exceeded, NIOSH equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for non-routine and emergency use.

VENTILATION:

Avoid breathing mists and vapor. Use in well ventilated area. In confined space, mechanical ventilation may be necessary to reduce vapor concentrations to levels below the allowable exposure limits.

EYE PROTECTION:

Keep away from eyes. Eye contact can be avoided by wearing safety glasses or chemical splash goggles.

SKIN PROTECTION:

Keep away from skin. Skin contact can be minimized by wearing protective gloves such as neoprene, nitrile-butadiene rubber, etc. and, where, necessary, impervious clothing and boots. Leather goods contaminated by this product should be discarded. A source of clean water should be available in the work area for flushing eyes and skin.

STORAGE:

Store in tightly closed containers in cool, dry, isolated and well ventilated areas away from heat, sources of ignition and incompatible materials. Use non-sparkign tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, smoking or using toilet facilities.

PRECAUTIONS:

Tanks, vessels or other confined spaces which have contained product should be freed of vapors before entering. Because H₂S can accumulate in tanks, vessels, and bulk transport compartments, personnel should stand upwind, keep their faces at least two feet from compartment openings, and avoid breathing vapors when opening hatches and dome covers. The container should be checked to ensure a safe atmosphere before entry. Empty containers may contain toxic, flammable/combustible or explosive residues or vapors. Do not cut, grind, drill, weld or reuse empty container that contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards

SPILL AND LEAK PROCEDURES:

If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Combustible Liquid. Review Fire and Explosion Hazard Data before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.)

and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g. by vacuuming). Precautions in Case of a Spill or Release: stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state, and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at (800) 424-8802. For highway or railway spills, contact PERS at (800) 633-8253.

WASTE DISPOSAL: Dispose of material in accordance with local, county, state and federal regulations. contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

SECTION 10 REGULATORY INFORMATION

SARA TITLE III (302, 304, 311, 312)

SECTION 302/304 EXTREMELY HAZARDOUS SUBSTANCES

NO RQ FOR PRODUCT OR ANY CONSTITUENT > 1% OR 0.1% (CARCINOGEN)

SECTION 311 HAZARD CATEGORY

ACUTE	CHRONIC	FIRE	PRESSURE	REACTIVE	NOT APPLICABLE
X	X	X			

SARA TITLE III (313)

Naphthalene	3% Maximum
Benzene	1% Maximum

TSCA One the TSCA Inventory List:

Canada DSL On the DSL List

California Prop 65

This product contains the following ingredients for which the State of California has found to cause cancer, birth defects, or other reproductive harm, which would require a warning under the statute:
Benzene

State Right-To-Know

Regulations:	CHEMICAL NAME:	STATE RIGHT-TO-KNOW:
	1 Naphthalene	CT, FL, IL, MA, NJ, PA, RI, MI, TN
	2 Benzene	MA, NJ, PA, TN

CERCLA/SUPERFUND

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of

release quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4.

OSHA Hazard Determination

This material is hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200

Protection of Stratospheric ozone

(Pursuant to section 611 of the Clean Air Act Amendments of 1990):
per 40 CFR part 82, this product does not contain nor was it directly manufactured with any class I or II ozone depleting substances.

SECTION 11 LABELING INFORMATION

Danger! Exhaust Fumes have been reported to be an Occupational hazard due to NIOSH-reported potential carcinogenic properties. May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist, and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Avoid prolonged or repeated skin contact. Flammable Liquid. Vapors may explode.

CAUTION: FLAMMABLE MATERIAL.

Keep liquid and vapor away from heat, sparks, and flame. Surfaces that are sufficiently hot may ignite liquid product in the absence of sparks or flames. Extinguish pilot light, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone. Vapors may accumulate and travel to ignition sources distant from the handling site; flash-fire can result. Keep containers closed when not in use. Use only with adequate ventilation. Containers, even those that have been emptied can contain explosive vapors. Do not cut, grind, drill, weld or perform similar operations on or near containers.

IF SWALLOWED, do not induce vomiting; aspiration hazard. Call physician immediately. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and plenty of water. Product soaked clothing should be removed and laundered before reuse. Read Emergency and First Aid Information section of the MSDS.

Use Only in Well Ventilated Locations. Keep away from heat, sparks and flames. In case of fire, use water spray, foam, dry chemical, or carbon dioxide as described in the Fire and Explosion Hazard Data section of the MSDS. Do not pressurize, cut, weld, braze, solder, drill on or near the container. "Empty" container contains residue (liquid and/or vapor) and may explode in heat of a fire.

For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.

DOT DOT CLASS 3: FLAMMABLE LIQUID



Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.106.

SECTION 12**SPECIAL NOTES**

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The Jankovich Company
14066 Garfield Ave.
Paramount, CA 90723

FOR ADDITIONAL INFORMATION ON THIS ENVIRONMENTAL DATA PLEASE CALL
(800) 650-0200

FOR EMERGENCY ASSISTANCE PLEASE CALL:

The Jankovich Company (800) 650-0200
PERS: (800) 633-8253