

1. PRODUCT NAME: 170 Solvent

2. CHEMICAL NAME:

3. SYNONYMS:

4. CAS NUMBER: 64742-47-8

5. COMPOSITION: This product may be composed, in whole or in part, of any of the following refinery streams: Light hydrotreated distillate (petroleum) [CAS No: 64742-47-8], Light aliphatic solvent naphtha (petroleum) [CAS No: 64742-89-8], Petroleum hydrocarbon distillates [CAS No: 8052-41-31]  
This product contains the following chemicals as components of the refinery streams listed above:  
C11 Alkanes, Isoparaffins, Cycloalkanes, and Naphthenes: mixture, 10-30%  
C12 Alkanes, Isoparaffins, Cycloalkanes: mixture, 70-90%

6. PROPERTIES: PHYSICAL STATE: Liquid.  
COLOR: clear.  
ODOR: Characteristic hydrocarbon solvent odor.  
SPECIFIC GRAVITY: 0.81 (Water = 1)  
PH: Not Applicable.  
VAPOR DENSITY: >1 (air = 1)  
BOILING RANGE: 212 to 227 c (414 to 440 F)  
MELTING/FREEZING POINT: Not available  
VAPOR PRESSURE: <0.01 kPa (0.1 mmHg) (at 20 c), 0.066 torr at 20 c (68 F) by Isoteniscope (ASTM D-2879)  
VOLATILITY: 810g/l VOC (w/v)  
SOLUBILITY IN WATER: Very slightly soluble in cold water. (<0.1% w/w)  
VISCOSITY (cSt@40 c): not available  
ADDITIONAL PROPERTIES: Paraffin, Isoparaffin and Cycloparaffin Hydrocarbons Content => 99Wt.% (ASTM D-1319); Aromatic Hydrocarbon Content =<1 Wt.% (ASTM D-1319); Average Density at 60 F = 6.74 lbs./gal. (Calculated via ASTM D-287); Aniline Cloud Point Temperature = 160 F (68 c) (ASTM D-611); Kauri-Butanol (KB) Value = 32 (ASTM D-1133); Dry Point Temperature = 440 F (227 c) (ASTM D-86, D-850, or D-1078); Heat Value = AP 20,000 Btu. Per pound; Flash Point = 176 F (80 c) (TCC)  
CHEMICAL STABILITY: Stable  
HAZARDOUS POLYMERIZATION: Not expected to occur.  
CONDITIONS TO AVOID: Keep away from extreme heat, strong acids, strong oxidizing conditions.  
MATERIALS INCOMPATIBILITY: Strong acids, alkalis, and oxidizers such as liquid chlorine and oxygen.  
HAZARDOUS DECOMPOSITION PRODUCTS: No additional hazardous decomposition products were identified other than the combustion products

7. HAZARDS: MAJOR ROUTES OF ENTRY: Skin contact. Inhalation.  
SIGNS AND SYMPTOMS OF ACUTE EXPOSURE:  
INHALATION: Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause central nervous system depression with symptoms including nausea, headache, dizziness, fatigue, drowsiness, or unconsciousness. Breathing high concentrations of this material, for example, in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.  
EYE CONTACT: This product can cause transient mild eye irritation with short-term contact with liquid sprays or mists. Symptoms include stinging, watering, redness, and swelling.

IN CASE OF  
TRANSPORT EMERGENCY  
CONTACT CHEMTREC  
USA: 1-800-424-9300  
INTERNATIONAL: 1-703-527-3887



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**SKIN CONTACT:** This product can cause mild, transient skin irritation with short-term exposure. The degree of irritation will depend on the amount of material that is applied to the skin and the speed and thoroughly that is removed. Symptoms include redness, itching, and burning of the skin. Repeated or prolonged skin contact can produce moderate irritation (dermatitis).

**INGESTION:** If swallowed, this material may irritate the mucous membranes of the mouth, throat, and esophagus. It can be readily absorbed by the stomach and intestinal tract. Symptoms include a burning sensation of the mouth and esophagus, nausea, vomiting, dizziness, staggered gait, drowsiness, loss of consciousness and delirium, as well as additional central nervous system (CNS) effects.

Due to its light viscosity, there is a danger of aspiration into the lungs during swallowing and subsequent vomiting. Aspiration can result in severe lung damage or death. Cardiovascular effects include shallow rapid pulse with pallor (loss of color in the face) followed by flushing (redness of the face). Also, progressive CNS depression, respiratory insufficiency and ventricular fibrillation leads to death.

**CHRONIC HEALTH EFFECTS SUMMARY:** Prolonged and/or repeated contact may cause skin irritation and inflammation. Symptoms include defatting, redness, blistering, lesions, and scaly dermatitis. Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction.

Repeated and prolonged overexposure to n-hexane has been associated with peripheral nerve tissue damage. Adverse effects include numbness, tingling, pain, and loss of muscle control in the extremities, disorientation, impaired vision and reflexes, decline in motor function and paralysis.

**CONDITIONS AGGRAVATED BY EXPOSURE:** Disorders of the following organs or organ systems that may be aggravated by significant exposure to this material or its components include: Skin, Respiratory System, Liver, Kidneys, Peripheral Nervous System, Central Nervous System (CNS)

**TARGET ORGANS:** This material may cause damage to the following organs: kidneys, liver, mucous membranes, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea

OSHA Health Hazard Classification: .

OSHA Physical Hazard Classification: Combustible

**HAZARD RATINGS:**

Health Hazard: HMIS - 1, NFPA - 0

Fire Hazard: HMIS - 2, NFPA - 2

Reactivity: HMIS - 0, NFPA - 0

\*= Chronic Health Hazard

**EMERGENCY OVERVIEW**

**PHYSICAL STATE:** Liquid

**COLOR:** clear

**ODOR:** Characteristic hydrocarbon solvent odor.

**CAUTION:**

Combustible Liquid and Vapor. Harmful or fatal if swallowed – can enter lungs and cause damage. Can cause eye, skin or respiratory tract irritation. Spills may create a slipping hazard.

8. **FIRE FIGHTING** NFPA FLAMMABILITY CLASSIFICATION: NFPA Class-III combustible liquid.

**INFORMATION:** FLASH POINT: Closed cup: 80 c (176 F). (Tagliabue.) (ASTM D-56))

LOWER FLAMMABLE LIMIT: AP 0.7%

UPPER FLAMMABLE LIMIT: AP 6%

AUTOIGNITION TEMPERATURE: not available

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, carbon monoxide, smoke, fumes, and/or unburned hydrocarbons.

**SPECIAL PROPERTIES:** Combustible Liquid! This material releases vapors heated above ambient temperatures. Vapors can cause a flash fire. Vapors can travel to a source of ignition and flashback. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. Use only with adequate ventilation. If containers is not properly cooled, it can rupture in the heat of fire a fire.

**EXTINGUISHING MEDIA: SMALL FIRE:** Use dry chemicals, carbon dioxide, foam, water fog, or inert



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gas (nitrogen). **LARGE FIRE:** Use foam, water fog, or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However, water can cause frothing and/or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, autoignition or explosion. **DO NOT** use a solid stream of water directly on the fire as the water may spread the fire to a larger area.

**PROTECTION OF FIRE FIGHTERS:** Fire fighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles. Cover pooling liquid with foam. Containers can build pressure if exposed to radiant heat; cool adjacent containers with flooding quantities of water until well after the fire is out. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines. Be aware that burning liquid will float on water. Notify appropriate authorities of potential fire and explosion hazard if Liquid enter sewers or waterways.

**9. PERSONAL PROTECTION MEASURES:** **ENGINEERING CONTROLS:** Provide ventilation on other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below. All electrical equipment should comply with the National Electric Code. An emergency eye wash station and safety shower should be located near the work-station.

**PERSONAL PROTECTIVE EQUIPMENT:** Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. For certain operations, additional PPE may be required : goggles with side shields, jacket, respirator, gloves.

**EYE PROTECTION:** Safety glasses equipment with side shields are recommended as minimum protection in industrial settings. Chemical goggles should be worn during transfer operations or when there is a likelihood of misting, splashing, or spraying of this material. Suitable eye wash water should be readily available.

**HAND PROTECTION:** Avoid skin contact. Use gloves (e.g., disposable PVC, neoprene, nitrile, vinyl, or PVC/NBR). Wash hands with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities or leaving work... **DO NOT** use gasoline, kerosene, solvents or harsh abrasives as skin cleaners.

**BODY PROTECTION:** Avoid skin contact. Wear long-sleeved fire-retardant (e.g., Normex®) while working with flammable and combustible liquids. Additional chemical-resistant protective gear may be required if splashing or spraying conditions exist. This may include an apron, boots and additional facial protection. If product comes in contact with clothing, immediately remove soaked clothing and shower. Promptly remove and discarded contaminated leather goods.

**RESPIRATORY:** For known vapor concentration use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA). For known vapor concentrations above the occupational exposure guidelines (see below), use a NIOSH-approved organic vapor respirator if adequate protection is provided. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

**GENERAL COMMENTS:** Warning! Use of this material in spaces without adequate ventilation may result in generation of hazardous levels of combustion products and/or inadequate oxygen levels for breathing. Odor is an inadequate warning for Hazardous conditions.

**10. FIRST AID PROCEDURES:** **INHALATION:** Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.

**EYE CONTACT:** Flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. If easily accomplished, check for and



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remove contact lenses. If contact lenses cannot be removed, seek immediate medical attention. Do not use eye ointment. Seek medical attention.

**SKIN CONTACT:** Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention.

**INGESTION:** Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended.

### NOTES TO PHYSICIAN:

**INHALATION:** Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required.

This material (or a component) sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate, cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

**INGESTION:** If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

11. **EXPOSURE LIMITS:** ACGIH TLV (United States). – TWA: 100ppm 8 hours.

OSHA PEL Z2 (United States). – TWA: 500ppm 8 hours.

12. **TOXICOLOGICAL INFORMATION:** Light Hydrotreated distillate (petroleum): Studies on laboratory animals have shown similar materials to cause eye and respiratory tract irritation. Studies of similar materials on laboratory animals have resulted in skin irritation after repeated or prolonged contact. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and rash (dermatitis).

Petroleum Hydrocarbon distillates: Dermal, Acute LD50 (rabbit): >3000 mg/kg, Inhalation, Acute LC50 (rat): >5.5 mg/l (8 hours)

Studies on laboratory animals have associated similar materials with eye and respiratory tract irritation.

Studies on laboratory animals have shown similar materials to cause skin irritation after repeated or prolonged contact. Repeated direct application of Stoddard Solvent to the skin can produce defatting dermatitis kidney damage in laboratory animals. Rats developed kidney damage and elevated blood urea nitrogen levels when exposed to a concentration of 1.9 mg/L for 65 day. The kidney damage occurred only in male rats study appeared to involve both the tubules and glomeruli. The significance of these animal study results to human health is unclear.

13. **ECOLOGICAL INFORMATION:** Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.

**ENVIRONMENTAL FATE:** This mixture will normally float on water with its lighter components evaporating rapidly. In stagnant or slow-flowing waterways, a hydrocarbon layer can cover a large surface area. As a result, this covering layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway might be enough to cause a fish kill or create an anaerobic environment. This coating action can also be harmful or fatal to plankton, algae, aquatic life, and water birds.

14. **DISPOSAL CONSIDERATIONS:** Conditions of use may cause this material to become a "hazardous waste", as defined by federal or state regulations. It is the responsibility of the user to determine if the material is a "hazardous waste" at the time disposal. Transportation, treatment, storage and disposal of waste material must be conducted in



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accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact the RCRA/Superfund Hotline at (800) 424-9346 or your regional US EPA office for guidance concerning case specific disposal issues. Empty drums and pails retain residue. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose this product's empty container to heat, flame, or other ignition sources. DO NOT attempt to clean it. Empty drums and pails should be drained completely, properly bunged or sealed, and promptly sent to a reconditioner.

### 15. CARCINOGENIC NE PROPERTIES & NOTIFICATIONS:

16. TRANSPORT INFORMATION: The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.

US DOT STATUS: A U.S. Department of Transportation (DOT) regulated material.

PROPER SHIPPING NAME: Petroleum Distillates, n.o.s. (Solvent, Naphtha), Combustible liquid, UN1268 PG III

HAZARD CLASS: Combustible Liquid

PACKING GROUP(S): III

UN/NA NUMBER: UN 1268

REPORTABLE QUANTITY: A Reportable Quantity (RQ) has not been established for this material.

PLACARDS: Combustible - 3

EMERGENCY RESPONSE GUIDE No.: 128

HAZMAT STCC No.: 4910256

MARPOL III STATUS: Not a DOT "Marine Pollutant" per 49 CFR 171.8.

17. HANDLING & STORAGE: HANDLING: A spill or leak can cause an immediate fire or explosion hazard. Keep containers closed and do not handle or store near heat, sparks, or any other potential ignition sources. Do not contact with oxidizable materials. Do not breathe vapor. Use only with adequate ventilation and personal protection. Never siphon by mouth. Avoid contact with eyes, skin, and clothing. Prevent contact with food and tobacco products. Do not take internally.

When performing repairs and maintenance on contaminated equipment, keep unnecessary persons away from the area. Eliminate all potential ignition sources. Drain and purge equipment, as necessary, to remove material residues. Use gloves constructed of impervious materials and protective clothing if direct contact is anticipated. Provide ventilation to maintain exposure potential below applicable exposure limits. Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling. Empty containers may contain material residues which can ignite with explosive force. Misuse of empty containers can be dangerous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers can cause fire, explosion, or release of toxic fumes from residues. Do not pressurize or expose empty containers to open flame, sparks, or heat. Keep container closed and drum bungs in place. All label warnings and precautions must be observed. Return empty drums to a qualified reconditioner, consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling, or disposing of empty containers and/or waste residues of this material.

STORAGE: Keep container closed. Store in a cool, dry, well-ventilated area. Do not store with oxidizing agents. Do not store at elevated temperatures or in direct sunlight for extended periods of time. Consult appropriate federal, state and local authorities before reusing reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

18. ACCIDENTAL RELEASE MEASURES: Flammable Liquid! Release causes an immediate fire or explosion hazard. Evacuate all non-essential personnel from immediate area and establish a "regulated zone" with site control and security. A vapor-suppressing foam may be used to reduce vapors. Eliminate all ignition sources. All equipment used when handling this material must be grounded. Stop the leak if it can be done without risk. Do not touch or walk



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through spilled material. Remove spillage immediately from hard, smooth walking areas. Prevent its entry into waterways, sewers, basements, or confined areas. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to appropriate waste containers. Use clean, non-sparking tools to collect absorbed material.

For large spills, secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Water mist or spray may be used to reduce or disperse vapors; but, it may not prevent ignition in closed spaces. This material will float on water and its run-off may create an explosion or fire hazard. Verify that responders are properly HAZWOPER-trained and wearing appropriate respiratory equipment and fire-resistant protective clothing during cleanup operations. In an urban area, cleanup spill as soon as possible; in natural environments, cleanup on advice from specialists. Pick up free liquid for recycle and/or disposal if it can be accomplished safely with explosion-proof equipment. Collect any excess material with absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal. Comply with all applicable local, state and federal laws and regulations.

19. REGULATORY INFORMATION: TSCA INVENTORY: This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304 EMERGENCY PLANNING AND NOTIFICATION: The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 311/312 HAZARD IDENTIFICATION: The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: fire, Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard

SARA 313 TOXIC CHEMICAL NOTIFICATION AND RELEASE REPORTING: This product contains the following components in concentrations above de minimis levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA: No components were identified.

CERCLA: the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substance" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. This product or refinery stream is not known to contain chemical substances subject to this statute. However, it is recommended that you contact state and local authorities to determine if there are any other reporting requirements in the event of spill.

CLEAN WATER ACT (CWA): this material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

ADDITIONAL REGULATORY REMARKS: Federal Hazardous Substances Act, related statutes, and Consumer Product Safety Commission regulations, as defined by 16 CFR 1500.14 (b) (3) and 1500.83 (a) (13): This product contains "Petroleum Distillates" which may require special labeling if distributed in a manner intended or packaged in a form suitable for use in the household or by children. Precautionary label dialogue should display the following: DANGER: Contains Petroleum Distillates! Harmful or fatal if swallowed! Call Physician Immediately. KEEP OUT OF REACH OF CHILDREN!