

# Safety Data Sheet



## Kraft Turpentine

### 1. Identification

TRADE NAME (AS LABELED): Kraft Turpentine

SYNONYMS: Sulfate Turpentine, Crude Sulfate Turpentine.

PRODUCT USES: Used as a solvent and industrial process chemical for oils, paints and polishes.

CHEMICAL NAME/CLASS: Chemical Mixture.



MANUFACTURER'S NAME: WestRock

ADDRESS: 504 Thrasher Street Norcross, GA 30071

EMERGENCY PHONE: (800) 424-9300 (CHEMTREC)



BUSINESS PHONE: 770-448-2193

### 2. Hazard(s) Identification

Signal Word: <b>DANGER</b> Kraft Turpentine - CAS# 8006-64-2		
Product Classification (GHS)	Hazard Statement(s)	Pictogram
PHYSICAL Flammable Liquid- Category 3	Flammable liquid and vapor	
HEALTH Acute Toxicity, Oral - Category 3 Acute Toxicity, Dermal - Category 4 Acute Toxicity, Inhalation - Category 4	Toxic if swallowed Harmful in contact with skin Harmful if inhaled	

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## 2. Hazards Identification (cont'd.)

Product Classification (GHS)	Hazard Statement(s)	Pictogram
Sensitization, Skin – Category 1 Aspiration Hazard- Category 1 Specific Target Organ Toxicity (single exposure) Kidney- Category 2 Respiratory-category 3	May cause allergic skin reaction May be fatal if swallowed and enters airways May cause damage to the kidneys and respiratory irritation	
Eye Damage/Irritation – Category 2A	Causes serious eye irritation	

<sup>1</sup>Note: Terpene hydrocarbons include mainly alpha and beta pinene and other C<sub>10</sub>H<sub>16</sub> hydrocarbons. Kraft Turpentine may also contain variable concentrations of miscellaneous sulfur compounds, some of which are known to be hazardous. Hazardous levels of reduced sulfur compounds, e.g. methyl mercaptan, may collect in the headspace of enclosed tanks or railcars. Sulfur compounds in Kraft turpentine vary by the region where they are produced, the tree species and whether the product is from a bleached or unbleached mill. Specific chemical analyses may be requested from the mill producing the Kraft turpentine.

### Precautionary Statements:

**PREVENTION STATEMENTS:** Wear gloves, eye, face and respiratory protection. Avoid breathing mist or vapors which causes respiratory tract irritation and burns. Do not eat drink or smoke when using this product. Keep away from heat/sparks/open flames/hot surfaces. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Contaminated clothing should not be taken out of the workplace. Avoid release to the environment.

**RESPONSE STATEMENTS:** If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing. If eye irritation persists get medical attention. If swallowed, rinse mouth. If swallowed or inhaled immediately call a poison center or doctor/physician and remove victim to fresh air and keep at rest in a position comfortable for breathing. Take off immediately all contaminated clothing. Rinse skin with water/shower, continue rinsing. Wash contaminated clothing before reuse. If skin irritation or rash occurs, get medical advice/attention. In case of fire, use appropriate extinction methods. Wash hands after handling.

**Ingredients of Unknown Acute Toxicity (>1%):** Not applicable.

## 3. Composition/Information on Ingredients

Ingredients	CAS#	Wt %
Turpentine and Terpene Hydrocarbon Isomers <sup>1</sup>	8006-64-2	97 – 99
Methyl mercaptan (MM) <sup>2</sup>	74-93-1	0.2 – 2.5
Dimethyl sulfide (DMS) <sup>3</sup>	75-18-3	1 – 2.5
Dimethyl disulfide (DMDS) <sup>4</sup>	624-92-0	0 – 1.3

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### 3. Composition/Information on Ingredients (cont'd.)

Common names:

<sup>1</sup>Spirit of turpentine, oil of turpentine, and wood turpentine.

<sup>2</sup>Methyl sulfhydrate, thiomethanol, methanethiol.

<sup>3</sup>Methyl monosulfide, dimethyl thioether, methyl sulfide, thiopropane.

<sup>4</sup>Methyl disulfide, disulfide dimethyl.

### 4. First Aid Measures

**Ingestion:** If swallowed, can produce nausea, or serious illness. DO NOT INDUCE VOMITING. Get immediate medical help.

**Eye Contact:** Liquid turpentine may cause severe irritation and conjunctivitis. Vapors are irritating at 175 ppm. Speed is essential. Immediately flush with running water for at least 15 minutes, including under eyelid. Get immediate medical help.

**Skin Contact:** May cause irritation, dermatitis, or chemical irritation. Remove contaminated clothing, footwear, and accessories such as a watch. Wash clothing before reuse and discard footwear which cannot be decontaminated. Immediately wash with warm running water and soap. Get medical help if irritation persists.

**Skin Absorption:** Liquid can penetrate skin to produce systemic effects. Wash thoroughly with soap and water and rinse.

**Inhalation:** May cause headache, dizziness, chest pain, bronchitis, pulmonary edema, cyanosis, narcosis, and rapid heart rate. Remove from exposure. Get medical help if symptoms persist or for excessive exposure.

**Symptoms or Effects:**

Acute Symptoms/Effects – Vapors cause headache, confusion, and respiratory distress. Liquid irritates the eyes and skin. If ingested, can irritate the entire digestive system and may injure kidneys. If liquid is taken into the lungs it may cause severe pneumonitis. May cause central nervous system (CNS) solvent syndrome.

Delayed Symptoms/Effects – Unique delayed effects are not anticipated after exposure. See Section 11 for additional information on chronic effects.

### 5. Fire Fighting Measures

**Extinguishing Media:** Foam, carbon dioxide, or dry chemical. If water must be used, use as a mist or fog only.

**Specific Hazards, Anticipated Combustion Products:** Combustion products may be carbon monoxide, carbon dioxide, sulfur oxides, aldehydes, methyl mercaptan and dimethyl sulfide.

**Autoignition Temperature:** 488°F (253°C)

**Special Firefighting Procedures:** Water may be ineffective in quenching fire, but can be used to cool fire-exposed containers and surroundings. Toxic gases may be released during fire. Use SCBA with full face piece and operated in pressure-demand or other positive-pressure mode.

**Unusual Fire and Explosion Hazards:** May be ignited by heat, sparks, flame or static electricity. Forms explosive vapor/air mixtures if combined with strong oxidizer (especially chlorine).

**NFPA Rating (Scale 0-4):**      **Health = 3**      **Fire = 3**      **Reactivity = 0**

### 6. Accidental Release Measures

**Steps to be Taken In Case Material Is Released or Spilled:** Immediately notify safety and environmental personnel. Provide adequate explosion-proof ventilation to remove vapors from spill area.

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## 6. Accidental Release Measures (cont'd.)

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal container.

Large Spill: Toxic flammable liquid, insoluble or very slightly soluble in water. Keep away from heat. Keep away from sources of ignition. Absorb with non-combustible material. Prevent entry into sewers, dike if needed. Personnel involved in cleanup should use protection against breathing vapors or contact with liquid. See section 8 for respiratory protection measures.

## 7. Handling and Storage

**Precautions to be Taken In Handling and Storage:** Store in a well-ventilated, cool place away from sources of heat and ignition. Hazardous levels of reduced sulfur compounds, e.g. methyl mercaptan, may collect in the headspace of enclosed tanks or railcars. Store away from oxidizing agents. Protect containers against physical damage. Use grounding straps when dispensing liquid. Do not smoke in areas of storage or use.

## 8. Exposure Control Measures/ Personal Protection

### Exposure Limits/Guidelines:

Name	CAS#	Percent	Agency	Exposure Limits	Comments
Turpentine and Terpene Hydrocarbon Isomers	8006-64-2	97 – 99	OSHA ACGIH	PEL-TWA 100 ppm TLV-TWA 20 ppm	None Sensitizer
Methyl mercaptan (CH <sub>4</sub> S)	74-93-1	0.2 – 2.5	OSHA ACGIH	Ceiling (C) 10 ppm TLV-TWA 0.5 ppm	Current PEL
Dimethyl sulfide (C <sub>2</sub> H <sub>6</sub> S)	75-18-3	1 – 2.5	OSHA ACGIH	None PEL-TWA 10 ppm	None
Dimethyl disulfide (C <sub>2</sub> H <sub>6</sub> S) <sub>2</sub>	624-92-0	0 – 1.3	OSHA ACGIH	None PEL-TWA 0.5 ppm	None Skin

### Personal Protective Equipment:

**RESPIRATORY PROTECTION** – Use NIOSH approved full face piece respirator with organic vapor chemical cartridge or higher levels of respiratory protection as indicated if there is a potential to exceed the exposure limits or for symptom relief or worker comfort. Use respiratory protection in accordance with regulatory and respirator selection requirements such as the OSHA respiratory protection standard 29 CFR 1910.134 following a determination of risk from potential exposures.

**PROTECTIVE GLOVES** – Chemical resistant gloves such as neoprene or polyvinyl alcohol are recommended.

**EYE PROTECTION** – Full-face mask respirator or chemical goggles are recommended depending on the exposure potential.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT** – Long sleeve protective garments may be used to protect against exposures from splash hazards. Launder contaminated clothing prior to reuse.

**WORK/HYGIENE PRACTICES** – Eyewash stations and safety showers should be readily accessible where there is the possibility for splash hazards. Avoid all contact with skin and eyes. Follow good hygienic and housekeeping practices.

### Ventilation:

**LOCAL EXHAUST** – Provide local exhaust as needed so that exposure limits are met.

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## 8. Exposure Control Measures/Personal Protection (cont'd.)

MECHANICAL (GENERAL) – Provide general ventilation in processing and storage areas so that exposure limits are met.

SPECIAL – Ensure that ventilation systems are of spark and explosion proof design.

OTHER – None

## 9. Physical/Chemical Properties

**Physical Description/Odor:** Clear or yellowish liquid with a characteristic organic odor.

<b>Auto-ignition temperature:</b>	488°F (253°C)
<b>Boiling Point (@ 760 mm Hg):</b>	246° – 344°F (119° – 173°C)
<b>Decomposition temperature</b>	Not available
<b>Evaporation Rate (Butyl Acetate = 1):</b>	0.4
<b>Freezing Point:</b>	-58° to -76°F (-50° to -60°C)
<b>Flash Point:</b>	60° to 95°F (15° to 35°C)
<b>Flammability:</b>	Flammable liquid
<b>Melting Point:</b>	-58° to -76°F (-50° to -60°C)
<b>Partition Coefficient (n-octanol/water):</b>	Not available
<b>Odor Threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Solubility in Water (% by weight):</b>	0.023% at 77°F (25°C)
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	0.87 at 59°F (15°C)
<b>Upper/Lower Explosive Limits</b>	LFL= 0.8% by volume
<b>Vapor Density (air = 1; 1 atm):</b>	4.8
<b>Relative Density:</b>	Not available
<b>Vapor Pressure (mm Hg):</b>	5 at 77°F (25°C)
<b>Viscosity:</b>	Not available
<b>% Volatile by Volume [@ 70°F (21°C)]:</b>	98%

## 10. Stability and Reactivity

**Stability:**  Unstable  Stable

**Conditions to Avoid:** This material is reasonably stable when stored in a well-ventilated, cool place in a suitable container sealed to exclude air. Vapors are heavier than air and can accumulate in low areas.

**Incompatibility (Materials to Avoid):** Oxidizing agents, oxidation catalysts, and sources of ignition and heat. May also react exothermically with reducing agents to produce gaseous hydrogen.

**Hazardous Decomposition or By-Products:** Carbon monoxide, carbon dioxide, methyl mercaptan, and dimethyl sulfide.

**Hazardous Polymerization:**  May occur  Will not occur

**Sensitivity to Mechanical Impact:** Not applicable.

**Sensitivity to Static Discharge:** Kraft turpentine is a flammable liquid which may be ignited or explode as the result of a static electricity discharge.

## 11. Toxicological Information

**Acute toxicity: Turpentine:** TCl<sub>o</sub> (inhalation, human) = 175 ppm. LD<sub>50</sub> (ingestion, rat) = 5,760 mg/kg. LC<sub>50</sub> (inhalation, rat) = 12 gm/m<sup>3</sup>/6H. LC<sub>50</sub> (inhalation, mouse) = 29 gm/m<sup>3</sup>/2H.

**Components:**

## 11. Toxicological Information (cont'd.)

Dimethyl disulfide (DMDS): LC<sub>50</sub> (rat, inhalation) = 805 ppm/4 hours

LC<sub>50</sub> (rat, inhalation) = 15.85 mg/m<sup>3</sup>/2 hours

LC<sub>50</sub> (mouse, inhalation) = 12.3 mg/m<sup>3</sup>/2 hours

Subchronic (rat, inhalation): 100 ppm/6 hours/day/5 days/week/4 weeks resulted in no toxicity.

Dimethyl sulfide (DMS): LC<sub>50</sub> (rat, inhalation) = 40,250 ppm/unknown exposure duration

LC<sub>50</sub> (mouse, inhalation) = 31,620 ug/m<sup>3</sup>/unknown exposure duration

Methyl mercaptan (MM): LC<sub>50</sub> (rat, inhalation) = 675 ppm/4 hours

LC<sub>50</sub> (mouse, inhalation) = 1,664 ppm/unknown exposure duration

Acute (rat, inhalation): 500 ppm/30-35 minutes produced no effect; 700 ppm/30-35 minutes produced inactivity with instant recovery after exposure ended.

**Target Organs:** Eyes, skin and respiratory system.

**Carcinogenicity:**

IARC: Listed by IARC - No

NTP: Listed by NTP - No

OSHA: Listed by OSHA – No

**Likely Route(s) of Exposure:** Skin, eyes, respiratory system.

**Reproductive effects:** No information available.

**Teratogenic effects:** No data available for the product or similar products.

**Mutagenic effects:** No information available.

**Signs and Symptoms of Exposure:**

Acute Health Hazards: Vapors cause headache, confusion, and respiratory distress. Liquid irritates the eyes and skin. If ingested, can irritate the entire digestive system and may injure kidneys. If liquid is taken into the lungs it may cause severe pneumonitis.

Chronic Health Hazards: Chronic skin absorption can produce allergic sensitization. May cause central nervous system (CNS) solvent syndrome.

## 12. Ecological Information

**Ecotoxicity:**

Toxicity to fish: static test LC<sub>50</sub> - Danio rerio (zebra fish) - 29 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates:

Static test EC<sub>50</sub> - Daphnia magna (Water flea) - 6.4 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae: static test EC<sub>50</sub> - Desmodesmus subspicatus (green algae) - 17.1 mg/l - 72 h (OECD Test Guideline 201)

**Biopersistence and Degradability:** No information available.

**Bioaccumulation:** No information available.

**Soil Mobility:** No information available.

## 13. Disposal Considerations

**Waste Disposal Method:** Do not dispose of this material into the sewer, ground or body of water. Waste material should be tested to determine if it meets applicable definitions of hazardous corrosive waste. Dispose of waste materials in accordance with federal, state, and local and provincial environmental regulations.

## 14. Transportation Information

**Mode:** (Air, Land, water) Transportation of Kraft turpentine is regulated by the U.S. Department of Transportation & Canada's Transportation of Dangerous Goods.

**Proper Shipping Name:** Determined by Flash Point  
**Hazard Class:** 3  
**UN/NA:** Determined by Flash Point  
**Packing Group:** II or III Based on Flash Point\*

**Label/Placard Required:** 3- Flammable Liquid

\*Contains methyl mercaptan but RQ only pertains to packaging containing more than 100 pounds.

## 15. Regulatory Information

**TSCA:** All ingredients are on the TSCA Inventory.

**CERCLA:** Reportable Quantity: 100 pounds (45.4 kg); Ignitable Hazardous Waste, D001

**DSL:** All ingredients are on the Canadian Domestic Substance List Inventory.

**OSHA:** This product would be a regulated hazard under the OSHA Hazard Communication Standard (29 CFR 1910.1200) as a hazardous chemical.

### STATE RIGHT-TO-KNOW:

California – This product does not contain substances identified on the Proposition 65 list.

New Jersey – This product contains turpentine, a substance listed by the State of New Jersey.

Massachusetts – This product contains turpentine, a substance listed by the State of Massachusetts.

**SARA 313 Information:** This product does not contain any chemical ingredient (s) with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, section 313 and 40 CFR section 372.

**SARA 311/312 Hazard Category:** This product has been reviewed according the EPA "Hazard Categories: promulgated under SARA Title III, Sections 311 and 312 and is considered, under applicable definitions, to meet the following categories:

An immediate (acute) health hazard	Yes
A delayed (chronic) health hazard	No
A fire hazard	Yes
A reactivity hazard	No
A sudden release hazard	No

**WHMIS Classification:** Controlled Product: Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-2B: Material causing other toxic effects (Toxic).

## 16. Additional Information

**Date Prepared:** 05/26/2015

**Date Revised:** 05/4/2017

**Prepared By:** WestRock Safety and Health Department.

**WestRock SDS available on:** [www.westrock.com](http://www.westrock.com)

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**Definition of Common Terms:**

ACGIH	= American Conference of Governmental Industrial Hygienists
C	= Ceiling Limit
CAS#	= Chemical Abstracts System Number
CERCLA	= Comprehensive Environmental Response, Compensation, and Liability Act
DOT	= U. S. Department of Transportation
DSL	= Domestic Substance List
EC50	= Effective concentration that inhibits the endpoint to 50% of control population
EC#	= European Commission Number
ENCS	= Japanese Existing and New Chemical Substances List
EPA	= U.S. Environmental Protection Agency
IARC	= International Agency for Research on Cancer
IATA	= International Air Transport Association
IMDG	= International Maritime Dangerous Goods
LC50	= Concentration in air resulting in death to 50% of experimental animals
LCLo	= Lowest concentration in air resulting in death
LD50	= Administered dose resulting in death to 50% of experimental animals
LDLo	= Lowest dose resulting in death
LEL	= Lower Explosive Limit
LFL	= Lower Flammable Limit
MSHA	= Mine Safety and Health Administration
NA	= Not Applicable
NIOSH	= National Institute for Occupational Safety and Health
NFPA	= National Fire Protection Association
NPRI	= Canadian National Pollution Release Inventory
NTP	= National Toxicology Program
OSHA	= Occupational Safety and Health Administration
PEL	= Permissible Exposure Limit
PNOR	= Particulate Not Otherwise Regulated
PNOS	= Particulate Not Otherwise Stated
RCRA	= Resource Conservation and Recovery Act
REACH	= Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	= Short-Term Exposure Limit (15 minutes)
STP	= Standard Temperature and Pressure
TCLo	= Lowest concentration in air resulting in a toxic effect
TDG	= Canadian Transportation of Dangerous Goods
TDLo	= Lowest dose resulting in a toxic effect
TLV	= Threshold Limit Value
TSCA	= Toxic Substance Control Act
TWA	= Time-Weighted Average (8 hours)
UFL	= Upper Flammable Limit
WHMIS	= Workplace Hazardous Materials Information System







# Kraft Turpentine

CAS # 8006-64-2

TRADE NAME (AS LABELED): Kraft Turpentine, Crude Sulfate Turpentine.



## Danger

Flammable Liquid and Vapor. Toxic if Swallowed and May Be Fatal If It Enters The Airways, May Cause Damage to The Kidneys. Harmful if inhaled or in contact with the skin. Irritating to the Respiratory System, Skin and Eyes. May cause allergic skin reactions.

**PRECAUTIONS:** Wear gloves, eye, face and respiratory protection. Avoid breathing mist or vapors which causes respiratory tract irritation and burns. Do not eat drink or smoke when using this product. Keep away from heat/sparks/open flames/hot surfaces. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Contaminated clothing should not be taken out of the workplace. Avoid release to the environment.

**FIRST-AID/RESPONSE:** If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing. If eye irritation persists get medical attention. If swallowed, rinse mouth. If swallowed or inhaled immediately call a poison center or doctor/physician and remove victim to fresh air and keep at rest in a position comfortable for breathing. Take off immediately all contaminated clothing. Rinse skin with water/shower, continue rinsing. Wash contaminated clothing before reuse. If skin irritation or rash occurs, get medical advice/attention. In case of fire, use appropriate extinction methods. Wash hands after handling.

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