

Section 1. Chemical Product and Company Identification

Product name	ATOSOL 200	<u>In Case of Emergency</u>	Chemtrec: (800) 424-9300 Total Petrochemicals & Refining USA, Inc.: (800) 322-3462
Supplier	Total Petrochemicals & Refining USA, Inc. P O Box 674411 Houston, TX 77267-4411	<u>Technical Information</u>	For non-emergency product information: email product.stewardship@total.com
Chemical Family	Aromatic Hydrocarbon Mixture	MSDS#	AS0011
CAS Registry Number	64742-94-5	Validation Date	3/29/2012
		Print Date	3/29/2012
Synonym	Aromatic Hydrocarbon Mixture, Solvent naphtha, petroleum, heavy arom. Formerly, FAS TX200		

Section 2. Hazards Identification

Emergency Overview	MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: LUNGS, CENTRAL NERVOUS SYSTEM, DIGESTIVE SYSTEM, RESPIRATORY TRACT, SKIN, EYES, BLOOD, KIDNEYS, LIVER. CONTAINS MATERIAL WHICH MAY CAUSE CANCER
Routes of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
Potential Acute Health Effects	
	<i>Eyes</i> May cause eye irritation.
	<i>Skin</i> May cause skin irritation. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
	<i>Inhalation</i> High vapor/mist concentration exposure can cause respiratory tract irritation, nausea, headaches, dizziness, and other central nervous system effects.
	<i>Ingestion</i> May cause irritation of gastrointestinal tract. If swallowed, aspiration into lungs may result in chemical pneumonitis and severe pulmonary injury.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Classified 2B (Possible for humans.) by IARC [naphthalene]. Classified 2 (Reasonably anticipated to be human carcinogens.) by NTP [naphthalene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [naphthalene].
Medical Conditions Aggravated by Overexposure	Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Overexposure /Signs/ Symptoms	Prolonged or repeated exposure to this product can cause central nervous system effects and irritation to the eyes, skin, and respiratory tract. Frequent skin contact can remove skin oils, resulting in dermatitis.
See Toxicological Information (Section 11)	

Section 3. Composition and Information on Ingredients

Occupational exposure limits, if available, are listed in Section 8.

Substance Name	CAS #	% by Weight
solvent naphtha (petroleum), heavy arom.	64742-94-5	100
2-methylnaphthalene	91-57-6	20 - 30
1-methylnaphthalene	90-12-0	10 - 20
naphthalene	91-20-3	5 - 20

Section 4. First Aid Measures

Eye Contact	Flush with large amounts of water. If redness persists, get medical attention.
Skin Contact	If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible. Wash contaminated skin with soap and water.
Inhalation	Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.
Ingestion	DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Auto-ignition Temperature	Not available.
Flash Points	CLOSED CUP: >93.333°C (200°F). (Tagliabue.).
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Fire Hazards in Presence of Various Substances	Combustible in presence of open flames and sparks at high temperature
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: Possible.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder, halon, and CO ₂ . LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Protective Clothing (Fire)	Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear (Bunker gear).

Section 6. Accidental Release Measures

Small Spill and Leak	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill and Leak	Contain spill and safely stop the flow. Warn personnel to move away. Eliminate all sources of ignition. Ventilate. Absorb with an inert material (sand) and put the spilled material in an appropriate waste disposal. Do not allow any potentially contaminated water including rain water, runoff from fire fighting or spills to enter any waterway, sewer or drain. Prevent entry into sewers, basements or confined areas; dike if needed. Keep out of waterways.

Section 7. Handling and Storage

Handling	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.
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Storage Keep container dry.
 Keep in a cool place.
 Ground all equipment containing material.
 Keep container tightly closed.
 Keep in a cool and well-ventilated area.
 Materials should be stored away from extreme heat and away from strong oxidizing agents.

All efforts should be made to prevent any leaks or spills. Storage tanks containing should be engineered to prevent contact with water resources, as this material could contaminate the water resources. Surface spills can reach groundwater through porous soil or cracked surfaces. The storage tanks should be monitored regularly for leaks. Where spills or leaks are possible, a comprehensive response plan should be developed and implemented.

Section 8. Exposure Controls/Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eyes Safety glasses with side shields.

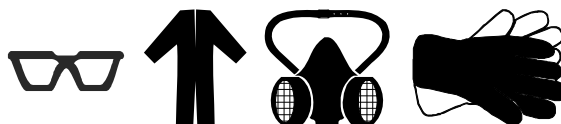
Body Coveralls.

Respiratory Use a MSHA/NIOSH approved respirator or equivalent at high concentrations.

Hands Chemical resistant gloves if contact is possible.

Feet Shoes.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

solvent naphtha (petroleum), heavy arom.
 2-methylnaphthalene
 1-methylnaphthalene
 naphthalene

Exposure Limits

Not established.
ACGIH TLV (United States, 2011). Absorbed through skin.
 TWA: 0.5 ppm 8 hour(s).
ACGIH TLV (United States, 2011). Absorbed through skin.
 TWA: 0.5 ppm 8 hour(s).
ACGIH TLV (United States, 2011).
 TWA: 10 ppm 8 hour(s).
 STEL: 15 ppm 15 minute(s).
OSHA PEL (United States, 11/2006).
 TWA: 10 ppm 8 hour(s).

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance Liquid.

Color Light straw.

Odor Aromatic.

Molecular Weight Not applicable.

Molecular Formula Not applicable.

Boiling/Condensation Point 232 to 279°C (449.6 to 534.2°F)

Specific Gravity 0.97 - 1.01 (Water = 1)

Vapor Pressure <1 mm of Hg (@ 20°C)
 Reid Vapor Pressure

Vapor Density 4.5 (Air = 1)

Volatility 100% (v/v).

Evaporation Rate Less than Butyl Acetate

VOC	100 (%)
Solubility in Water	Negligible.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with Various Substances	Extremely reactive or incompatible with strong oxidizing agents.
Hazardous Decomposition Products	carbon monoxide & carbon dioxide
Hazardous Polymerization	Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological Information

Toxicity to Animals	Acute oral toxicity (LD50): 1596 mg/kg (Mouse) (Calculated value for the mixture). Acute dermal toxicity (LD50): 13131 mg/kg (Rat) (Calculated value for the mixture).
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified 2B (Possible for humans.) by IARC [naphthalene]. Classified 2 (Reasonably anticipated to be human carcinogens.) by NTP [naphthalene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [naphthalene]. May cause damage to the following organs: lungs, Central Nervous System (CNS), digestive system, upper respiratory tract, skin, eyes, kidneys, liver, blood.
Other Toxic Effects on Humans	May be irritating to eyes, skin and respiratory system. Aspiration hazard if swallowed. Can enter lungs and cause damage.
Special Remarks on Toxicity to Animals	NTP concluded based on inhalation studies that there is <i>clear evidence of carcinogenic activity</i> of naphthalene in rats based on increased incidences of respiratory epithelial adenoma (tissue tumors) and olfactory epithelial neuroblastoma (malignant tumors) of the nose.



Section 12. Ecological Information

Ecotoxicity	Aromatic hydrocarbon solvents are moderately toxic to freshwater fish, invertebrate and algae.
Mobility	Constituents of this type of aromatic solvent are expected to partition between air, water, and soil.
Special Remarks on the Products of Biodegradation	Constituents of this type of aromatic solvent are expected to biodegrade.

Section 13. Disposal Considerations

Waste Information	Recover free liquid. Transfer to a safe disposal area in accordance with federal, state, and local regulations.
Consult your local or regional authorities.	

Section 14. Transport Information (for domestic bulk shipments, non-bulk shipments may differ)

DOT Classification for Bulk Shipments (non bulk shipments may differ)	DOT CLASS 9: Miscellaneous Hazardous Material	
Proper Shipping Name/Description	UN3082, Environmentally Hazardous Substances, liquid, n.o.s. (Aromatic Naphtha), 9, PGIII RQ (contains Naphthalene)	
UN Number	UN3082	
Packing Group	III	
Marine Pollutant	Not listed in Appendix B to 49CFR172.101	
Hazardous Substances Reportable Quantity	Naphthalene: 100 lbs	
Special Provisions for Transport	See codes as shown in 49 CFR 172.101 column 7.	
TDG Classification	Not available.	

IMO/IMDG Classification Not available.

ICAO/IATA Classification Not available.

USCG Proper Shipping Name Naphtha: Aromatic

Section 15. Regulatory Information

HCS Classification Class: Target organ effects.

U.S. Federal Regulations **TSCA 4(a) final test rules:** naphthalene
TSCA 8(a) PAIR: naphthalene
TSCA 8(a) IUR: Partial exemption
United States inventory (TSCA 8b): All components are listed or exempted.
TSCA 12(b) annual export notification: naphthalene

SARA 302/304/311/312 extremely hazardous substances: To the best of our knowledge, there are no substances that would be at reportable levels for this regulation in this product.
SARA 302/304 emergency planning and notification: To the best of our knowledge, there are no substances that would be at reportable levels for this regulation in this product.
SARA 302/304/311/312 hazardous chemicals: solvent naphtha (petroleum), heavy arom.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: solvent naphtha (petroleum), heavy arom.: Immediate (acute) health hazard, Delayed (chronic) health hazard

SARA 313 Supplier Notification

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372 -Table 372.65).

<u>Product name</u>	<u>CAS number</u>	<u>Concentration (%)</u>
naphthalene	91-20-3	5 - 20

Clean Water Act (CWA) 307: naphthalene

Clean Water Act (CWA) 311: naphthalene

International Regulations

WHMIS (Canada) Class D-2A: Material causing other toxic effects (Very toxic).

CEPA Toxic substances: The following components are listed: Naphthalene
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Heavy aromatic solvent naphtha
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

EINECS 265-198-5

DSCL (EEC) R65- Harmful: may cause lung damage if swallowed.

CEPA DSL/NDSL **Canada inventory:** All components are listed or exempted.

International Lists **Australia inventory (AICS):** All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.

State Regulations

Massachusetts Substances: The following components are listed: 1-METHYLNAPHTHALENE; NAPHTHALENE
New Jersey Hazardous Substances: The following components are listed: NAPHTHALENE; MOTH FLAKES
New York Acutely Hazardous Substances: The following components are listed: Naphthalene
Pennsylvania RTK Hazardous Substances: The following components are listed: NAPHTHALENE, 1-METHYL-; NAPHTHALENE

WARNING: This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Section 16. Other Information

Label requirements MAY BE HARMFUL IF INHALED.
 MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
 MAY BE HARMFUL IF SWALLOWED.
 ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE
 MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: LUNGS, CENTRAL NERVOUS SYSTEM, DIGESTIVE SYSTEM, RESPIRATORY TRACT, SKIN, EYES, BLOOD, KIDNEYS, LIVER.

CONTAINS MATERIAL WHICH MAY CAUSE CANCER

Hazardous Material Information System (U.S.A.)

Health	*	1
Fire Hazard		1
Reactivity		0
Personal Protection		

National Fire Protection Association (U.S.A.)



References -HSDB - Hazardous Substances Data Bank
 Chemtox Database

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Chemtrec:
 (800) 424-9300
Total Petrochemicals & Refining USA, Inc.:
 (800) 322-3462

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MSDS Name ATOSOL 200 **MSDS Code** ATOSOL200

To obtain an electronic copy of this MSDS, please email: product.stewardship@total.com.