

SAFETY DATA SHEET

Cutter Stock

Section 1. Identification

GHS product identifier : Cutter Stock

Other means of identification : Process Quench Oil

Product use : Fuel feedstock.

Supplier's details : TPC Group
One Allen Center, Suite 2000
Houston, TX, 77002, USA
T 713-627-7474

e-mail address of person responsible for this SDS : communications@tpcgrp.com

Emergency telephone number (with hours of operation) : 800-424-9300 (Chemtrec - U.S.)
+1-703-527-3887 (Chemtrec - International)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause cancer.
May cause damage to organs through prolonged or repeated exposure. (hearing organs)

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Do not breathe dust or mist. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Section 2. Hazards identification

Response	: IF exposed or concerned: Get medical advice or attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. 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 advice or attention.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.
Hazards identified when used	: No known significant effects or critical hazards.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Process Quench Oil

Ingredient name	Synonyms	%	Identifiers
Benzene, ethylenated, residues, heavy ends	DH2; Quench Oil	65 - 95	CAS: 212210-96-3
Polynuclear aromatic hydrocarbons	Aromatic hydrocarbons, polycyclic	5 - 35	CAS: 130498-29-2
pyrene	pyrene [PAH, POM]; beta-Pyrene; Benzo (d,e,f) phenanthrene; piren	0.5 - 10	CAS: 129-00-0
2,3-dimethyl-9H-fluorene		1 - 8	CAS: 4612-63-9
2-isopropenyl-3-isopropyl naphthalene		5 - 7	CAS: 61838-59-3
fluoranthene	BENZO(J,K)FLUORENE; BENZO (jk)FLUORANTHENE; fluoranthene [PAH, POM]	3 - 7	CAS: 206-44-0
4H-cyclopenta[def]phenanthrene	4,5-methylenephenanthrene; 4H-Cyclopenta(def)phenanthrene; tetracyclo[10.2.1.05,14.08,13] pentadeca-1,3,5(14),6,8(13), 9,11-heptaene	0.5 - 6	CAS: 203-64-5
phenanthrene	phenanthrene, pure; phenanthrene, crude; phenanthrene [PAH, POM]	3 - 5	CAS: 85-01-8
o-terphenyl	1,1':2',1"-Terphenyl; 1,2-Diphenylbenzene; o-Triphenyl; ortho-Terphenyl; 1,2-Terphenyl; 2-Phenylbiphenyl; o-Diphenylbenzene; Triphenyl; BENZENE, 1,2-DIPHENYL-; 1,2-di(phenyl)benzene	0.5 - 4	CAS: 84-15-1
2-methylnaphthalene	Naphthalene, 2-methyl-; .beta.-Methylnaphthalene; naphthylene, 2-methyl-; 2-methyl naphthalene [PAH, POM]; beta-Methylnaphthalene; 2-methyl-naphthalene; Mono and dimethylnaphthalene; β-Methyl	0.5 - 3	CAS: 91-57-6

Section 3. Composition/information on ingredients

ethylbenzene	naphthalene Benzene, ethyl-; Phenylethane; Ethylbenzol; EB; Mono-(or di-) methyl (ethyl,bromoallyl, bromopropylloxycarbonyl orchloropropylloxycarbonyl) benzene	0.5 - 3	CAS: 100-41-4
fluorene	9H-Fluorene; fluorene [PAH, POM]; Diphenylenemethane	1 - 3	CAS: 86-73-7
3,6-dimethylphenanthrene		0.5 - 3	CAS: 1576-67-6
indene	1H-Indene; Indonaphthene; Technical indene; Inden	1 - 3	CAS: 95-13-6
triphenylene	benzo[<i>l</i>]phenanthrene	0.5 - 3	CAS: 217-59-4
2,7-dimethylnaphthalene	Mono and dimethylnaphthalene; Naphthalene, 2,7-dimethyl-	0.5 - 2	CAS: 582-16-1
m-xylene	Benzene, 1,3-dimethyl-; m- Dimethylbenzene; m-Xylol; meta- Xylene; 1,3-Dimethylbenzene; m- Xylenes; Xylene; m-xylene a,a- diamine; xylene, m-isomer; xylene, meta-; 1,3-Xylene	0.1 - 2	CAS: 108-38-3
Phenyl-naphthalene derivatives		0.5 - 1	CAS: 35465-71-5
Benzene, 1,1'-ethylidenebis-	1,1'-Diphenylethane; 1,1-Diphenylethane; 1,1'- ethylidenebisbenzene; Ethylidenebis[benzene]; ETHANE, 1,1-DIPHENYL-	0.5 - 1	CAS: 612-00-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 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.
Skin contact	: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam. Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
Benzene-ethylene derivatives
halogenated compounds

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	: Combustible.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Benzene, ethylenated, residues, heavy ends	None.
Polynuclear aromatic hydrocarbons	None.
pyrene	None.
fluoranthene	None.
phenanthrene	None.
o-terphenyl	NIOSH REL (United States, 10/2020) CEIL: 5 mg/m ³ . CEIL: 0.5 ppm. CAL OSHA PEL (United States, 1/2025) [terphenyls] C: 5 mg/m ³ . C: 0.5 ppm. ACGIH TLV (United States, 1/2024) [Terphenyls (o-, m-, p-isomers)] C: 0.53 ppm. C: 5 mg/m ³ .
2-methylnaphthalene	ACGIH TLV (United States, 1/2024) A4. Absorbed through skin. TWA 8 hours: 0.5 ppm.
ethylbenzene	NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 435 mg/m ³ . STEL 15 minutes: 125 ppm. STEL 15 minutes: 545 mg/m ³ . CAL OSHA PEL (United States, 1/2025) STEL 15 minutes: 130 mg/m ³ . STEL 15 minutes: 30 ppm. TWA 8 hours: 22 mg/m ³ . TWA 8 hours: 5 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ . OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m ³ . STEL 15 minutes: 125 ppm. STEL 15 minutes: 545 mg/m ³ . ACGIH TLV (United States, 1/2024) A3. Ototoxicant. TWA 8 hours: 20 ppm.
3,6-dimethylphenanthrene	None.
indene	NIOSH REL (United States, 10/2020) TWA 10 hours: 10 ppm. TWA 10 hours: 45 mg/m ³ . CAL OSHA PEL (United States, 1/2025) TWA 8 hours: 48 mg/m ³ . TWA 8 hours: 10 ppm. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 10 ppm.

Section 8. Exposure controls/personal protection

m-xylene	<p>TWA 8 hours: 45 mg/m³. ACGIH TLV (United States, 1/2024) TWA 8 hours: 5 ppm.</p> <p>NIOSH REL (United States, 10/2020) TWA 10 hours: 100 ppm. TWA 10 hours: 435 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 655 mg/m³.</p> <p>CAL OSHA PEL (United States, 1/2025) [xylene] STEL 15 minutes: 655 mg/m³. STEL 15 minutes: 150 ppm. C: 300 ppm. TWA 8 hours: 435 mg/m³. TWA 8 hours: 100 ppm.</p> <p>OSHA PEL (United States, 5/2018) [Xylenes] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m³.</p> <p>OSHA PEL 1989 (United States, 3/1989) [Xylenes (o-, m-, p-isomers)] TWA 8 hours: 100 ppm. TWA 8 hours: 435 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 655 mg/m³.</p> <p>ACGIH TLV (United States, 1/2024) [xylene] A4. TWA 8 hours: 20 ppm.</p>
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Biological exposure indices

Ingredient name	Exposure indices
Polynuclear aromatic hydrocarbons	<p>ACGIH BEI (United States, 1/2024) [polycyclic aromatic hydrocarbons] BEI: 2.5 µg/l, 1-hydroxypyrene [in urine]. Sampling time: end of shift at end of workweek.</p> <p>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 3-hydroxybenzo(a)pyrene [in urine]. Sampling time: end of shift at end of workweek.</p>
pyrene	<p>ACGIH BEI (United States, 1/2024) [polycyclic aromatic hydrocarbons] BEI: 2.5 µg/l, 1-hydroxypyrene [in urine]. Sampling time: end of shift at end of workweek.</p> <p>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 3-hydroxybenzo(a)pyrene [in urine]. Sampling time: end of shift at end of workweek.</p>
fluoranthene	<p>ACGIH BEI (United States, 1/2024) [polycyclic aromatic hydrocarbons] BEI: 2.5 µg/l, 1-hydroxypyrene [in urine]. Sampling time: end of shift at end of</p>

Section 8. Exposure controls/personal protection

phenanthrene	<p>workweek.</p> <p>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 3-hydroxybenzo(a)pyrene [in urine]. Sampling time: end of shift at end of workweek.</p> <p>ACGIH BEI (United States, 1/2024) [polycyclic aromatic hydrocarbons]</p> <p>BEI: 2.5 µg/l, 1-hydroxypyrene [in urine]. Sampling time: end of shift at end of workweek.</p> <p>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 3-hydroxybenzo(a)pyrene [in urine]. Sampling time: end of shift at end of workweek.</p>
2-methylnaphthalene	<p>ACGIH BEI (United States, 1/2024) [polycyclic aromatic hydrocarbons]</p> <p>BEI: 2.5 µg/l, 1-hydroxypyrene [in urine]. Sampling time: end of shift at end of workweek.</p> <p>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 3-hydroxybenzo(a)pyrene [in urine]. Sampling time: end of shift at end of workweek.</p>
ethylbenzene	<p>ACGIH BEI (United States, 1/2024)</p> <p>BEI: 150 mg/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift.</p>
m-xylene	<p>ACGIH BEI (United States, 1/2024) [xylenes (technical or commercial grades)]</p> <p>BEI: 0.3 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.</p>

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye/face protection** : 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Recommended: Ensure an MSHA/NIOSH-approved respirator or equivalent is used.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Color** : Brown. [Dark]
- Odor** : Aromatic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 290.28 to 478.56°C (554.5 to 893.4°F)
- Flash point** : Closed cup: >150°C (>302°F)
- Evaporation rate** : Not available.
- Flammability** : Combustible.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** : <6.9 kPa (<51.72 mm Hg)
- Relative vapor density** : Not available.
- Relative density** : 0.96 to 1.02
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): Not available.
 Kinematic (room temperature): Not available.
 Kinematic (40°C (104°F)): 0.195 mm²/s (0.195 cSt)
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.

Section 9. Physical and chemical properties

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Keep away from heat, sparks and flame.

Incompatible materials : Reactive or incompatible with the following materials: Strong oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary

Skin : Causes skin irritation.

Eyes : Causes serious eye irritation.

Respiratory : Not available.

Respiratory or skin sensitization

Conclusion/Summary

Skin : May cause an allergic skin reaction.

Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : May cause cancer.

Classification

Product/ingredient name	OSHA	IARC	NTP
Polynuclear aromatic hydrocarbons	-	-	Reasonably anticipated to be a human carcinogen.
pyrene	-	3	-
fluoranthene	-	3	-
phenanthrene	-	3	-
ethylbenzene	-	2B	-
m-xylene	-	3	-

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Section 11. Toxicological information

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
o-terphenyl	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Name	Result
Benzene, ethylenated, residues, heavy ends	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
indene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : Adverse symptoms may include the following:
 nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : May cause damage to organs through prolonged or repeated exposure.

Section 11. Toxicological information

- General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Cutter Stock	3842.1	80300.0	N/A	321.2	N/A
fluoranthene	500	N/A	N/A	N/A	N/A
phenanthrene	500	N/A	N/A	N/A	N/A
o-terphenyl	500	N/A	N/A	N/A	N/A
2-methylnaphthalene	500	N/A	N/A	N/A	N/A
ethylbenzene	N/A	N/A	N/A	11	N/A
m-xylene	N/A	1100	N/A	11	N/A

Section 12. Ecological information

Toxicity

- Conclusion/Summary** : Toxic to aquatic life with long lasting effects.

Persistence and degradability

- Conclusion/Summary** : There are no data available on the mixture itself.

Bioaccumulative potential

Not available.

Mobility in soil

- Soil/Water partition coefficient** : Not available.
- Mobility** : Not available.

- Other adverse effects** : No known significant effects or critical hazards.

Section 13. Disposal considerations

- Disposal methods** : The generation of waste should be avoided or minimized wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a

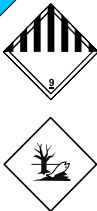
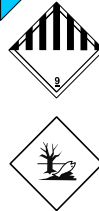
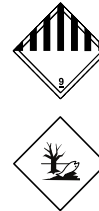
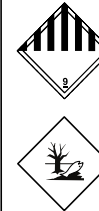
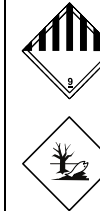
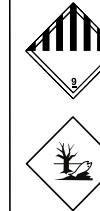
Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Fluoranthene	206-44-0	Listed	U120
Xylene	108-38-3	Listed	U239

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN3082	UN3082	UN3082	UN3082	UN3082	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (pyrene, fluoranthene)	SUBSTANCIA LÍQUIDA PELIGROSA PARA EL MEDIO AMBIENTE, N. E.P. (pyrene, fluoranthene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (pyrene, fluoranthene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (pyrene, fluoranthene)	Environmentally hazardous substance, liquid, n.o.s. (pyrene, fluoranthene)
Transport hazard class(es)	9	9	9	9	9	9
Label						
Packing group	III	III	III	III	III	III
Environmental hazards	Yes.	Yes.	Yes.	Yes.	Marine Pollutant: Yes	Yes.

Additional information

DOT Classification

: Non-bulk packages of this product are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg.

Reportable quantity 1428.6 lbs / 648.57 kg [173.07 gal / 655.12 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

Limited quantity Yes.

Packaging instruction Exceptions: 155. Non-bulk: 203. Bulk: 241.

Special provisions 8, 146, 173, 335, 441, IB3, T4, TP1, TP29

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark). Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.

Explosive Limit and Limited Quantity Index 5

Special provisions 16, 99

Section 14. Transport information

Mexico Classification	: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Special provisions 274, 331, 335, 375
ADR/RID	: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Hazard identification number 90 Limited quantity 5 L Special provisions 274, 335, 601, 375, 650 Tunnel code (-)
IMDG	: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Emergency schedules F-A, S-F Special provisions 274, 335, 375, 969
IATA	: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8. Quantity limitation Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y964. Special provisions A97, A158, A197, A215

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not intended.

Section 15. Regulatory information

U.S. Federal regulations

TSCA 8(a) PAIR: indene

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Water Act (CWA) 307: Polynuclear aromatic hydrocarbons; pyrene; fluoranthene; phenanthrene; 2-methylnaphthalene; ethylbenzene; fluorene

Clean Water Act (CWA) 311: ethylbenzene; m-xylene

TSCA 12(b) - Chemical export notification

Not applicable.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Section 15. Regulatory information

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
pyrene	0.5 - 10	Yes.	1000 / 10000	-	5000	-

SARA 304 RQ : 50000 lbs / 22700 kg [6057.3 gal / 22929.3 L]

SARA 311/312

Classification : SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 1B
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Name	%	Classification
Benzene, ethylenated, residues, heavy ends	65 - 95	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 ASPIRATION HAZARD - Category 1
Polynuclear aromatic hydrocarbons	5 - 35	CARCINOGENICITY - Category 1B
fluoranthene	3 - 7	ACUTE TOXICITY (oral) - Category 4
phenanthrene	3 - 5	ACUTE TOXICITY (oral) - Category 4
o-terphenyl	0.5 - 4	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2-methylnaphthalene	0.5 - 3	ACUTE TOXICITY (oral) - Category 4
ethylbenzene	0.5 - 3	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
3,6-dimethylphenanthrene	0.5 - 3	EYE IRRITATION - Category 2A
indene	1 - 3	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A ASPIRATION HAZARD - Category 1
m-xylene	0.1 - 2	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2

SARA 313

Section 15. Regulatory information


	Product name	CAS number	%
Form R - Reporting requirements	fluoranthene	206-44-0	3 - 7
	phenanthrene	85-01-8	3 - 5
	ethylbenzene	100-41-4	0.5 - 3
	m-xylene	108-38-3	0.1 - 2
Supplier notification	fluoranthene	206-44-0	3 - 7
	phenanthrene	85-01-8	3 - 5
	ethylbenzene	100-41-4	0.5 - 3
	m-xylene	108-38-3	0.1 - 2

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: PYRENE; BENZO(J,K)FLUORENE; PHENANTHRENE; O-TERPHENYL; ETHYL BENZENE; FLUORENE; INDENE; M-XYLENE
- New York** : The following components are listed: Pyrene; Fluoranthene; Phenanthrene; Ethylbenzene; Fluorene; m-Xylene
- New Jersey** : The following components are listed: POLYCYCLIC AROMATIC HYDROCARBONS; PYRENE; BENZO(jk)FLUORANTHENE; PHENANTHRENE; TERPHENYLS (mixed isomers); 2-METHYL NAPHTHALENE; ETHYL BENZENE; FLUORENE; INDENE; m-XYLENE
- Pennsylvania** : The following components are listed: PYRENE; FLUORANTHENE; PHENANTHRENE; BENZENE, ETHYL-; 9H-FLUORENE; 1H-INDENE; BENZENE, 1,3-DIMETHYL-

California Prop. 65

 **WARNING:** This product can expose you to chemicals including Carbon-black extracts and Ethylbenzene, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Carbon-black extracts	-	-
Ethylbenzene	Yes.	-

EPA PFAS Compilation from Comptox

Not listed.

TSCA 8(a)7 - One-time Reporting PFAS

Not listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

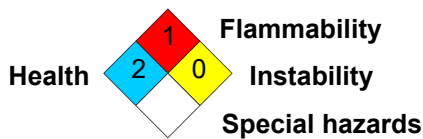
Not listed.

OECD Comprehensive Global PFAS Database

Not listed.

Section 16. Other information

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



Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

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Version : 2

Key to abbreviations : ADR = Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 DOT = Department of Transportation
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
 SGG = Segregation Group
 TDG = Transportation of Dangerous Goods
 UN = United Nations

References : Not available.

▢ Indicates information that has changed from previously issued version.

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Section 16. Other information