

MATERIAL SAFETY DATA SHEET

PARAMOUNT PETROLEUM BAKERSFIELD

1201 China Grade Loop Bakersfield, CA 93308 (661) 392-3630

This Material Safety Data Sheet contains environmental, health and toxicology information for your employees. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and other laws. If you resell this product, this MSDS must be given to the buyer, or the information should be incorporated in your MSDS. Discard any previous edition of this MSDS.

A. IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME

TOPEIN® C
Emulsified Rejuvenating Agent, Type C

PRODUCT CODE

Emulsified Asphalt

PRODUCT CATEGORY

Petroleum Asphalt

PRODUCT APPEARANCE AND ODOR

Dark viscous liquid, Low asphalt odor

EMERGENCY TELEPHONE NUMBERS

1-800-424-8802 National Response Center 1-800-424-9300 Chemtrec

WARNING!

- Heating may release highly toxic and flammable hydrogen sulfide (H₂S) gas.
- Prolonged or repeated breathing of fumes or contact with skin can be harmful.
- Materials present in asphalt have caused cancer in laboratory animals.
- Keep out of reach of children.

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS

Asphalt
Proprietary ingredients
Soap (Emulsifier)
Water

CAS NO. OF COMPONENTS

8052-42-4
proprietary
61791-55-7

APPROXIMATE CONCENTRATION

50-57%
5-15%
5%
Balance

All components of this product are listed on the U.S. TSCA inventory.
See Section E for Health and Hazard Information.
See Section H for additional Environmental Information.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Health
0

Flammability
1

Reactivity
0

BASIS

Recommended by PARAMOUNT PETROLEUM BAKERSFIELD.

(Least=0, Slight=1, Moderate=2, High=3, Extreme=4)

EXPOSURE LIMIT FOR TOTAL PRODUCT

OSHA Regulation 29 CFR 1910.1000 and the American Conference of Governmental Industrial Hygienist (ACGIH) have adopted a Threshold Limit Value for the hydrogen sulfide (H₂S) of 10 ppm (14 mg/m³) in air as a time-weighted average for an 8-hour workday with a 15 ppm (21 mg/m³), and a maximum peak of 50 ppm (70 mg/m³) for 10 minutes once per day if no other measurable exposure occurs. NIOSH-approved respiratory equipment should be used when permissible concentrations are exceeded.

BASIS

Recommended by PARAMOUNT
PETROLEUM BAKERSFIELD

C. PRIMARY ROUTES OF ENTRY AND EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT

If hot product is splashed into eyes, flush with clear water and contact physician.

SKIN

If skin is contaminated with cool, solid asphalt, the contamination area should be cleaned with waterless skin cleanser followed by soap and water.

If skin is contacted with hot asphalt, thermal burns will result. In this case, the contaminated area should be treated similarly to other thermal burns by cooling the affected area immediately with the coldest available water. It is not usually advisable to immediately remove the asphalt material. Natural separation will occur in 48 - 72 hours. Removal should be attempted only under the direction of a physician. If removal is attempted, mineral oil (not mineral spirits) or mineral oil ointment may be applied to soften the asphalt to facilitate removal. Remove all contaminated clothing.

INHALATION

If overcome by vapor remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available.

INGESTION

If ingested, **DO NOT INDUCE VOMITING; call a physician immediately.**

D. FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM)

450°F (232°C) ASTM D 3143, Tag Open Cup

AUTOIGNITION TEMPERATURE

(Approximate)

Not Available

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION

HEALTH

0

FLAMMABILITY

1

REACTIVITY

0

BASIS

Recommended by the National Fire Protection Association.

(Least=0, Slight=1, Moderate=2, High=3, Extreme=4)

HANDLING PRECAUTIONS

Keep product away from ignition sources, such as heat, sparks, pilot lights, static electricity, static electricity, and open flame.

FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)

Estimated values: Lower Flammable Limit Upper Flammable Limit
Not Available Not Available

HOT ASPHALT FLASH WARNING

Studies have shown that relatively low flash point substance, such as hydrogen sulfide (H₂S) and low-boiling hydrocarbons, may accumulate in the vapor space of hot asphalt tanks and bulk transport compartments. Such vapors may exhibit flammability characteristics of a significantly lower flash product than would be indicated by the open cup flash test. As a precaution, keep ignition sources away from vents and openings, including prevention of accumulation of pyrophoric iron sulfide. Asphalt Institute Publication IS-180 and American Petroleum Institute Publication 852-20230 contain further information and guidance on the safe storage and handling of hot asphalt.

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES

Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Eighth Edition (1984):

Use water spray, dry chemical, foam or carbon dioxide to extinguish the fire. Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for men attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

Fumes, smoke, carbon monoxide, hydrogen sulfide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

"EMPTY" CONTAINER WARNING

"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with Health Administration regulations, ANSI z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding or other contemplated operations.

There is water present in this product. Inspect, thoroughly empty and drain all containers before refilling with hot liquid to prevent boilover.

E. HEALTH AND HAZARD INFORMATION

VARIABILITY AMONG INDIVIDUALS

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure)

High vapor concentrations (greater than approximately 700 ppm, attainable at elevated temperatures well above ambient) are irritating to the eyes and the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death. CAUTION: Product is normally shipped hot (approximately 100-185°F): protect against burns. See statements below regarding hydrogen sulfide (H₂S).

NATURE OF HAZARD AND TOXICITY INFORMATION

Skin contact with hot product may cause thermal burns. Prolonged or repeated contact with this product at warm or ambient temperatures tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Eye contact with hot product may cause thermal burns. Contact with this product at warm or ambient temperatures may cause eye irritation but will not damage eye tissue.

CAUTION: Under certain circumstances sulfur compounds in hot product may form hydrogen sulfide (H₂S) gas. Cooling product may continue to emit traces of (H₂S) temporarily from entrapped or dissolved gases. (H₂S) is a colorless, toxic and extremely flammable gas with an odor at low concentrations characteristic of rotten eggs and a sweetish odor at high concentrations. Odor cannot be relied upon as a means of detection because the sense of smell rapidly becomes insensitive to (H₂S), and the (H₂S) odor may be masked by the general odor of hot product. Because (H₂S) may accumulate in tanks and bulk transport compartments, personnel should stand upwind, keep their faces at least two feet from compartment openings, and avoid breathing vapors when opening hatches and dome covers.

Prolonged breathing of 50 to 100 ppm, of (H₂S) may produce eye and respiratory tract irritation, headache, nervousness and nausea and only a few breaths of high concentrations (e.g. 700 to 1000 ppm) may lead to unconsciousness and could be fatal. NIOSH-approved respiratory equipment should be used when permissible concentrations are exceeded. The OSHA 8-hour Time Weighted Average-Permissible Exposure Limit (TWA-PEL) is 10 ppm with a 15 minute Short Term Exposure Limit (TWA-STEL) of 15 ppm.

DERMAL TOXICITY

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if it gets on the skin. This hazard is based on data from similar materials.

F. PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE

IBP 650 - 1000+°F (ASTM D 2887)

VAPOR PRESSURE

Less than 0.1 mm Hg @ 20°C

SPECIFIC GRAVITY (H₂O = 1) (Typical)

0.98 @ 60°F (15.6°C)

VAPOR DENSITY (Air = 1)

Greater than 5

pH

2 - 7

POUR, CONGEALING OR MELTING POINT

Not Available

EVAPORATION RATE @ 1 atm and 25°C (77°F) (n-BUTYL ACETATE = 1)
Negligible

SOLUBILITY IN WATER @ 1 atm and 77°F (25°C)
Negligible - less than 0.1%

VISCOSITY @ 275°F and 30 mm Hg (typical)
475 min

PERCENT VOLATILE BY VOLUME
Not Available

G. REACTIVITY

This product is stable. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc. Hot product in contact with water can cause foaming or sudden evolution of steam which could cause pressure build-up and possibly rupture a tank or vessel.

Hydrogen sulfide (H₂S) from the product can react with the iron in an asphalt storage tank to form ferrous sulfide which is pyrophoric.

H. ENVIRONMENTAL INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Shut off and eliminate all ignition sources. Keep people away. Form a dike or berm to contain product. Recover free liquid. Minimize skin contact. Ventilate confined spaces. Hot product may solidify when cooled. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered any sewer or water courses. Assure conformity with applicable governmental regulation. Continue to observe precautions for volatile, combustible vapors from absorbed material.

THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES:

REPORTABLE QUANTITY (RQ), EPA REGULATION 40 CFR 302 (CERCLA Section 102)

No RQ for product or any constituent greater than 1% or 0.1% (carcinogen).

THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355 (SARA Section 301-304)

No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 313)

No toxic chemical is present greater than 1% or 0.1% (carcinogen).

HAZARDOUS CHEMICAL REPORTING, EPA REGULATION 40 CRF 370 (SARA Section 311-312)

EPA HAZARD CLASSIFICATION CODE:	Acute	Chronic	Fire	Pressure	Reactive
Hazard:	Hazard:	Hazard:	Hazard:	Hazard:	Hazard:
xxx	xxx	xxx			

I. PROTECTION AND PRECAUTIONS

VENTILATION

Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air.

RESPIRATORY PROTECTION

Use supplied-air respiratory in confined or enclosed spaces, if needed, or when H₂S exceeds permissible limits.

PROTECTIVE GLOVES

Protect against hot liquid. Use chemical-resistant gloves to avoid skin contact.

EYE PROTECTION

Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT

Use chemical-resistant apron or other impervious clothing, if needed, to protect against hot liquid and to avoid skin contact.

WORK PRACTICES/ENGINEERING CONTROLS

No smoking, flame or other ignition sources.

Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants. Ventilation must be sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air.

In order to prevent fire or explosion hazards, use appropriate equipment.

Information on electrical equipment appropriate for use with this product may be found in the latest edition of the National Electrical Code (NFPA-70). This document is available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.

PERSONAL HYGIENE

Minimize breathing vapor, mist or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before re-use. Remove contaminated shoes and thoroughly clean before re-use; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

ADDITIONAL HEALTH DATA COMMENT:

There is concern about the carcinogenicity of chemical compounds found in asphalts. The International Agency for Research on Cancer (IARC) reviewed the carcinogenic potential of asphalts in 1985 and again in 1987. At that time, they concluded there was inadequate evidence to decide that asphalts were carcinogenic to humans. Overall, findings from health monitoring studies of asphalt workers are not conclusive. However, asphalt fume condensates and certain chemical components of asphalt fume have been shown to cause cancer in mice when repeatedly applied to the skin and allowed to remain on the skin for a prolonged period of time. In addition, asphalt fume condensates have been shown to be weakly positive in Ames mutagenicity tests. Skin contact and breathing of fumes, mists and vapors should be reduced to a minimum.

J. TRANSPORTATION AND OSHA RELATED LABEL INFORMATION

TRANSPORTATION INCIDENT INFORMATION

For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents, DOT Publication P 5800.5.

DOT IDENTIFICATION NUMBER:

Elevated Temperature Material, N.O.S. 9 NA 9259 III Liquid

LABEL REQUIREMENTS:

Class 9

PACKAGING GROUP:

III (CFR 49 Hazardous Materials Table 172.IV)

OSHA REQUIRED LABEL INFORMATION

In compliance with hazard and right-to-know requirements, the following OSHA Hazard Warnings should be found on a label, bill of lading or invoice accompanying this shipment.

DANGER!

COMBUSTIBLE

MAY FORM HYDROGEN SULFIDE (H₂S) WHEN HEATED

INHALATION OF (H₂S) MAY BE FATAL

MAY CAUSE SKIN CANCER

Note: Product label will contain additional non-OSHA related information.

The information and recommendations contained herein are, to the best of PARAMOUNT PETROLEUM BAKERSFIELDs' knowledge and belief, accurate and reliable as of the date issued. PARAMOUNT PETROLEUM BAKERSFIELD does not warrant or guarantee their accuracy or reliability, and PARAMOUNT PETROLEUM BAKERSFIELD shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure that proper health, safety and other necessary information is included on the container.

The Environmental Information included under Section H hereof as well as the Hazardous Materials Identification System (HMIS)

and National Fire Protection Association (NFPS) ratings have been included in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems.

FOR OTHER PRODUCT INFORMATION CONTACT:
MSDS Coordinator
PARAMOUNT PETROLEUM BAKERSFIELD
1201 China Grade Loop
Bakersfield, CA 93308
Phone (661) 392-3630
Fax (661) 399-1054