SAFETY DATA SHEET



1. Identification

Product identifier CYCLOGEN M

Other means of identification

Product Code 2851A

Recommended use See Manufacturer's Brochure

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer:Tricor Refining, LLC.Address:P.O. Box 5877

Bakersfield, CA 93388

24-hour Telephone

Number:

(661) 393-7110

CHEMTREC: 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. Hazard(s) identification

Physical hazardsNot classified.Health hazardsNot classified.Environmental hazardsNot classified.OSHA defined hazardsNot classified.

Label elements

Hazard symbol None.
Signal word None.

Hazard statement Not available.

Precautionary statement

PreventionNot available.ResponseNot available.StorageNot available.

Disposal Dispose of contents/container to an appropriate treatment and disposal facility in accordance with

applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise

classified (HNOC)

Heated product will cause thermal burns.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
ASPHALT		8052-42-4	50 - 60
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC		64742-52-5	40 - 50

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs,

keep head low so that stomach content doesn't get into the lungs.

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Most important

symptoms/effects, acute and

delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special

treatment needed

Treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Water fog. Foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment

and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

equipment/instructions

Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Specific methodsUse standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas.

Conditions for safe storage,

including any incompatibilities

Keep away from heat and sources of ignition. Store in original tightly closed container.

8. Exposure controls/personal protection

Occupational exposure limits

Biological limit values

This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection Not available.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

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General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state
Form
Color
Not available.

Odor threshold
Not available.

Not available.

Not available.

Not available.

Initial boiling point and

Melting point/freezing point

> 550.4 °F (> 288 °C)

Not available.

boiling range

Flash point 400.0 °F (204.4 °C) **Evaporation rate** Not available.

Flammability (solid, gas)

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit -

Not available.

upper (%)

Explosive limit - lower

Not available.

Not available.

(%)

Explosive limit - upper

(%)

Vapor pressureNot available.Vapor densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) Nil

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature 500 °F (260 °C) estimated

Decomposition temperature Not available. **Viscosity** Not available.

Other information

Specific gravity 0.96 - 1.01

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition N

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation May be harmful if inhaled. However, this product does not currently meet the criteria for

classification.

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Skin contact Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis

Eye contact May be irritating to eyes.

Ingestion May cause gastrointestinal discomfort if swallowed. Do not induce vomiting. Vomiting may

increase risk of product aspiration.

Symptoms related to the physical, chemical and toxicological characteristics

Not available.

Information on toxicological effects

Acute toxicity Not classified.

Skin corrosion/irritation Not classified. May cause defatting of the skin, but is neither an irritant nor a sensitizer.

Serious eye damage/eye

irritation

Not classified.

Respiratory or skin sensitization

Respiratory sensitization Not classified. **Skin sensitization** Not classified.

Germ cell mutagenicity Non-mutagenic based on Modified Ames Assay.

Carcinogenicity Contains polycyclic aromatic compounds (PACs).

Contains polycyclic aromatic compounds (PACs). Prolonged and/or repeated skin contact with certain PACs has been shown to cause skin cancer. Prolonged and/or repeated exposures by inhalation of certain PACs may also cause cancer of the lung and of other sites of the body

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicityContains no ingredient listed as toxic to reproduction

Specific target organ toxicity

- single exposure

Not classified.

Specific target organ toxicity

- repeated exposure

Not classified.

Aspiration hazard Not classified.

Chronic effects Prolonged or repeated contact may cause drying, cracking, or irritation of the skin

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste codeThe waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues /

unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal

instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

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14. Transport information

DOT

UN number UN3257

UN proper shipping name Elevated temperature liquid, n.o.s. (ASPHALT)

Transport hazard class(es)

Class 9
Subsidiary risk Packing group III

Special precautions for Not available.

user

IATA

UN number Not available. **UN proper shipping name** Forbidden

Transport hazard class(es)

Class Forbidden

Subsidiary risk

Packing group Not available.

Environmental hazards No.

Special precautions for Not available.

user

IMDG

UN number UN3257

UN proper shipping name Elevated temperature liquid, n.o.s. (ASPHALT)

Transport hazard class(es)
Class 9
Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant No.

EmS Not available. **Special precautions for** Not available.

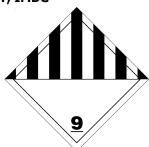
user

Transport in bulk according to Not available.

Annex II of MARPOL 73/78

and the IBC Code

DOT; IMDG



15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

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Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

Classified hazard

Hazard not otherwise classified (HNOC)

categories

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information, including date of preparation or last revision

 Issue date
 04-16-2015

 Revision date
 09-17-2018

 Version #
 02

NFPA ratings Health: 1

Flammability: 2 Instability: 0

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge

information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

materials or in any process, unless specified in the text.

Revision information Composition / Information on Ingredients: Disclosure Overrides

Physical & Chemical Properties: Multiple Properties

Regulatory Information: United States HazReg Data: International Inventories

GHS: Classification

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A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).