



Safety Data Sheet in accordance with Regulation (EU) No. 453/2010 and OSHA 29 CFR 1910.1200 HCS

ASTRO-KOTE A-OF

1. Identification of the Substance/ Mixture and of the Company/ Undertaking

Product Name: ASTRO-KOTE A-OF

Preparation Date: June 30, 2015

Revision Date: April 7, 2016

Recommended Use: Rust Inhibitor

Supplier: MONROE FLUID TECHNOLOGY

36 Draffin Road,
Hilton, NY 14468

Phone: 800-828-6351 585-392-3434

EMERGENCY NUMBERS: CHEMTREC (800) 424-9300 Monroe Fluid Technology (800) 828-6351

2. Hazards Identification

GHS Classification: Aspiration Toxicity – Category 1

H304 – May be fatal if swallowed and enters airways

Flammable Hazard – Category 4

H227 - Combustible liquid

GHS Labeling:

Symbols:



Signal Word: Danger

Precautionary Statements:

P210: Keep away from heat/sparks/open flames/hot surfaces – no smoking

P235: Keep cool

P280: Wear protective gloves/ protective clothing/ eye protection

P301 + P310: If swallowed, immediately call a poison center or doctor/physician

P301+P331: If swallowed, do NOT induce vomiting

P370 + P378: In case of fire, use water fog, foam, dry chemical or carbon dioxide (CO2) for extinction.

P403: Store in a well-ventilated place

P501: Dispose of contents/ container to an approved waste disposal plant



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Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] and OSHA 29 CFR 1910.1200

HCS: Aspiration Toxicity – Category 1, Flammable Hazard – Category 4

Other Hazards Not Classified: No significant hazards

3. Composition/Information on Ingredients

Chemical Name	CAS Number	Concentration, Wt. %
Distillates, Petroleum, Hydrotreated Light	64742-47-8	Trade secret
Severely Hydrotreated Heavy Naphthenic Distillate	64742-52-5	Trade secret

4. First Aid

Inhalation: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Eyes: Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion: If swallowed, immediately call a poison center or doctor/physician. If swallowed, do NOT induce vomiting

Skin: Wash affected area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

5. Fire-fighting Measures

Suitable extinguishing media: In case of fire, use water fog, foam, dry chemical or carbon dioxide (CO₂) for extinction.

Specific hazards: Combustible. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Hazardous material.

Specific protective equipment and precautions for fire fighters: Combustible. Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire and Explosion Hazards: None

Flammability Properties:

Flash point: 143°F/ 62°C

Method Used: TCC

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:



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Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders. For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H₂S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

Environmental Precautions: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks.

Methods and materials for containment: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

7. *Handling and Storage*

Precautions for safe handling: Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures.

Conditions for safe storage: Keep away from heat/sparks/open flames/hot surfaces – no smoking. The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge

8. *Exposure Controls/Personal Protection*

Control parameters:

Exposure Guidelines:

Distillates, Petroleum, Hydrotreated Light and Severely Hydrotreated Heavy Naphthenic Distillate: OSHA PEL: 100 ppm ACGIH TLV: 100 ppm TWA

Appropriate engineering controls: Proper protection and controls is dependent upon the potential exposure conditions. Adequate ventilation should be provided so that exposure limits are not exceeded. Use explosion-proof ventilation equipment.

Individual protective measures:

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.



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Respiratory protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Eye protection: If contact is likely, safety glasses with shields or chemical goggles are required. Contact lenses should not be worn if the product could be splashed into the eyes.

Hand protection: Chemical resistant gloves are recommended.

Body protection: Chemical/oil resistant clothing is recommended.

9. Physical and Chemical Properties

Appearance: Clear dark amber liquid

Odor: Petroleum odor

Odor Threshold: N/D

pH : @ 5% in water: N/A

Freezing point: Not determined

Initial boiling point and boiling range: 186°C (367°F) - 262°C (504°F)

Flash Point (TCC): 143°F/ 62°C

Evaporation Rate (n-butyl acetate = 1): 0.26

Flammability (Solid, Gas): N/D

Flammable limits (Approximate volume % in air): LEL: 0.7 UEL: 5.4

Vapor pressure: 0.16 mm Hg @ 20°C

Vapor density (Air = 1): >3

Relative density: 0.81+/-0.01 @ 15.5°C

Partition coefficient n-octanol/water: N/D

Autoignition Temperature: >230°C (446°F)

Decomposition Temperature: N/D

Viscosity: N/D

10. Stability and Reactivity

Chemical stability: Stable at normal conditions

Possibility of hazardous reactions: Not expected and hazardous polymerization will not occur

Conditions to avoid: Excessive Heat.

Incompatible Materials: None known.

Hazardous decomposition products: Material does not decompose at ambient temperatures.

11. Toxicological Information

Inhalation: May be fatal if swallowed and enters airways. Inhalation may cause central nervous system effects. May be irritating to the respiratory tract.



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Skin: Minimally toxic. Prolonged contact may cause mild irritation

Eyes: Contact may cause mild, short-lasting discomfort to eyes.

Oral: Minimally toxic. May be fatal if swallowed and enters airways.

Systemic (other target organ) Effects: None known

Teratology (birth defects): None known

Reproductive Effects: None known

Mutagenicity (effects on genetic material): None known

Carcinogenicity: IARC: NO NTP: No OSHA: No

12. Ecological Information

Persistence and degradability: Expected to be readily biodegradable

13. Disposal Considerations

Disposal methods: Dispose of contents/ container to an approved waste disposal plant. Dispose of in accordance with federal, state and local regulations

Precaution for disposal: All recovered material should be packaged, labeled, transported and disposed or reclaimed in conformance with Good Engineering Practices. Comply with all applicable governmental regulations. Avoid land filling of liquids. Reclaim where possible.

14. Transport Information

USA DOT (Land): Hydrocarbons, liquid, N.O.S. UN 3295, 3C, III Not regulated by D.O.T. if in a container of 119 gallon (450 litres) capacity or less.

IMDG (Sea): Not regulated as a hazardous material or dangerous goods for transportation.

IATA (Air): Not regulated as a hazardous material or dangerous goods for transportation.

15. Regulatory Information

US TSCA: In compliance with the inventory

Canada DSL: In compliance with the inventory

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

Complies with the following national/regional chemical inventory requirements:: ENCS, IECSC, DSL, AICS, TSCA, KECI, PICCS



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Cal. Prop. 65 This product does not intentionally contain any chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.

EPCRA: This material contains no extremely hazardous substances.

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA petroleum exclusion applies for this product. Contact local authorities to determine if other reporting requirements apply.

CWA / OPA: This product is classified as an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990. Discharge or spills which produce a visible sheen on either surface water, or in waterways/sewers which lead to surface water, must be reported to the National Response Center at 800-424-8802.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

VOC Content (SCAQMD ASTM 1868-10): This product exceeds South Coast Air Quality Management District (SCAQMD) limits for VOC per ASTM E-1868-10 and may not be offered for sale or use within that district.

16. Other Information

Special Precautions to be Taken in Handling and Storage:

Normal precautions common to good manufacturing practices should be followed in handling and storing. Store away from food. Wash hands before eating, drinking or smoking. Use as directed.

Disclaimer: This document has been prepared in good faith and from information provided to us by our suppliers and other sources considered to be reliable. No warranty, express or implied is given. The buyer is responsible to evaluate all available information when using this product for any particular use. The buyer is also responsible for complying with all Federal, State, Provincial, and Local Laws and regulations when using this product.