SAFETY DATA SHEET

Focus Ester PA 117

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Focus Ester PA 117
RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE: This material's recommended use is as a lubricity additive in metalworking fluids and industrial oils. Restrictions on use of this material has not been determined.

SUPPLIER
Focus Chemical Inc.
3 Research Drive, Suite 130
Greenville, SC 29607
Phone: 866-801-1201
E-Mail: Requests@focuschemical.com

EMERGENCY TELEPHONE NUMBER(S)
CHEMTREC (U.S. Transportation), 24-hour - USA: 800-424-9300
CHEMTREC (U.S. Transportation), 24-hour - International: +1 703-527-3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS
Health:
Not classified as a hazardous substance or mixture.

GHS LABEL
Not classified as a hazardous substance or mixture. No hazard labeling or statements apply.

3. COMPOSITION / INFORMATION ON INGREDIENTS

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with running water for at least 15 minutes. Seek medical attention if eye irritation develops or persists.
SKIN: Wash contaminated area with soap and water. Seek medical attention if irritation develops or persists. Launder contaminated clothing before use.
INGESTION: Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician. Never give anything by mouth to an unconscious person.
INHALATION: Remove exposed person to fresh air if adverse effects are observed. If not breathing, provide artificial respiration or oxygen by trained personnel. Consult a physician after significant exposure.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED: Refer to Section 11 (Toxicological Information) of SDS.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:
Notes to Physician: Treat symptomatically.

5. ADVICE FOR FIREFIGHTERS

SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA: Use foam, dry chemical or carbon dioxide to extinguish fire. Caution:
Carbon dioxide will displace air in confined spaces and may cause an oxygen deficient atmosphere. Water can be used to cool exposed material. Do not use high volume water jet, as this may spread burning material.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE: In the event of fire the following can be released: carbon oxides and other irritating fumes and smoke.

ADVICE FOR FIREFIGHTERS: Fire fighter protection should include self-contained breathing apparatus (NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

For non-emergency personnel:
Evacuate surrounding areas. Keep unnecessary and unprotected persons away. Ensure adequate ventilation. Use personal protective equipment. Do not touch or walk through spilled material. Avoid breathing vapor or mist.

For emergency responders:
Use personal protection recommended in Section 8 of SDS. See also information in "For non-emergency personnel."

ENVIRONMENTAL PRECAUTIONS: Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, sewers and waterways. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterway, soil or air).

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Stop the flow of material, if safe to do so. Dike the area to prevent spreading, if possible. Absorb with an inert material like vermiculite, sand or earth, and put the spilled material in an appropriate waste disposal container.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Put on appropriate personal protective equipment (see Section 8 of SDS). Open container in a well-ventilated area. Keep away from heat and sources of ignition. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. When using do not eat, drink or smoke. Wash hands after use. Remove contaminated clothing and protective equipment before leaving workplace.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITES: Store in a cool, dry, well-ventilated area. Keep container closed when not in use. Keep away from heat, sparks and open flame. Do not store near any incompatible substances (see Section 10 of SDS) and food and drink.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS: Use with adequate ventilation.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT (PPE)

EYES AND FACE: Wear safety glasses with side shields.

SKIN: Wear chemical-resistant gloves and protective clothing.

RESPIRATORY: In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

PROTECTIVE CLOTHING: Wear protective clothing to cover as much of the exposed skin as possible. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Mild.

ODOR THRESHOLD: Not available.

APPEARANCE: Viscous amber liquid.
pH: Not available.

FLASH POINT AND METHOD: 186°C (366.8°F) PMCC

FLAMMABLE LIMITS: Not available.

AUTOIGNITION TEMPERATURE: Not available.

VAPOR PRESSURE: Not available.

VAPOR DENSITY: Not available.

BOILING POINT: Not available.

FREEZING POINT: Not available.

THERMAL DECOMPOSITION: Not available.

SOLUBILITY IN WATER: Insoluble.

PARTITION COEFFICIENT: N-OCTANOL/WATER: Not available.

EVAPORATION RATE: Not available.

DENSITY: Not available.

SPECIFIC GRAVITY: 0.98 at 25°C

VISCOITY: 230 mm²/s at 100°C

10. STABILITY AND REACTIVITY

REACTIVITY: None known.

POSSIBILITY OF HAZARDOUS REACTIONS: Stable under recommended storage conditions.

CHEMICAL STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: Avoid heating to decomposition. Avoid excess heat, sources of ignition, sparks and open flames. Avoid contact with incompatible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides and other irritating fumes and smoke.

INCOMPATIBLE MATERIALS: Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

DERMAL LD₅₀: > 2000 mg/kg

Notes: Species: rabbit; Based on data from components or similar materials.

ORAL LD₅₀: > 2000 mg/kg

Notes: Species: rat; Based on data from components or similar materials.

SKIN CORROSION/IRRITATION: No data available.

SERIOUS EYE DAMAGE/IRRITATION: No data available.

RESPIRATORY OR SKIN SENSITISATION: No data available.

GERM CELL MUTAGENICITY: No data available.

CARCINOGENICITY

IARC: No components are listed as carcinogens.
NTP: No components are listed as carcinogens.

OSHA: No components are listed as carcinogens.

REPRODUCTIVE TOXICITY: No data available.

STOT-SINGLE EXPOSURE: No data available.

STOT-REPEATED EXPOSURE: No data available.

ASPIRATION HAZARD: No data available.

INFORMATION ON THE LIKELY ROUTES OF EXPOSURE: No data available.

ADDITIONAL INFORMATION:
- SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS: No data available.
- DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE: No data available.

12. ECOLOGICAL INFORMATION

PERSISTENCE AND DEGRADABILITY: No data available.

BIOACCUMULATIVE POTENTIAL: No data available.

OTHER ADVERSE EFFECTS: No data available.

TOXICITY: No data available.

MOBILITY IN SOIL: No data available.

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: The generation of waste should be avoided or minimized wherever possible. Dispose of this product in accordance with all applicable local, state and federal regulations. Do not allow this material to drain into sewers/water supplies. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (Exposure Controls and Personal Protection) of SDS.

PACKAGING DISPOSAL: Containers should be drained of residual material before disposal. Emptied containers should be disposed of in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated.

AIR (ICAO/IATA)

SHIPPING NAME: Not regulated.

VESSEL (IMO/IMDG)

SHIPPING NAME: Not regulated.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No REACTIVITY: No ACUTE TOXICITY: No CHRONIC: No

313 REPORTABLE INGREDIENTS: This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic
substance) of any chemical substances listed under SARA Section 313.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: None known.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components of this product are on the TSCA inventory or are exempt.

CALIFORNIA PROPOSITION 65: This product does not intentionally contain chemical(s) known by the state of California to cause cancer, birth defects or reproductive harm.

16. OTHER INFORMATION

Date Revised: 12/21/2017

REVISION SUMMARY: This SDS replaces the 12/18/2014 SDS. Revised: Section 11: ADDITIONAL INFORMATION.

ABBREVIATIONS AND ACRONYM:

ATE - Acute Toxicity Estimate
CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act
DOT - Department of Transportation
GHS - Global Harmonized System
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods
IMO - International Maritime Organization
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
OSHA - Occupational Safety and Health Administration
NIOSH - National Institute of Occupational Safety and Health
NTP - National Toxicology Program
PMCC - Pensky-Martens Closed Cup
PPE - Personal Protective Equipment
RCRA - The Resource Conservation and Recovery Act
RQ - Reportable Quantity
SARA - Superfund Amendments and Reauthorization Act
SDS - Safety Data Sheet
STOT - Specific Target Organ Toxicity
TSCA - Toxic Substances Control Act

MANUFACTURER DISCLAIMER: The information and the recommendations provided in this Safety Data Sheet (SDS) are believed to be accurate and are given in good faith. However, no warranty, expressed or implied, is given. Since the actual use of the product described herein is beyond our control, Focus Chemical, Inc. assumes no responsibility or liability arising out of the use of the product by others. Users should make their own investigations to determine the suitability of the information for their particular purposes. It is the responsibility of the purchaser or user to ensure that his/her activities comply with all federal, state, provincial or local laws.