SAFETY DATA SHEET



according to regulation (EU) No 2015/830

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation

of the mixture

Registration number

Synonyms None. 6419 SDS number

Ford Internal Ref.: 196734 **Product code**

Issue date 09-March-2016

Version number 1 1

Revision date 06-September-2016 09-March-2016 Supersedes date Product use Public use

1.2. Relevant identified uses of the substance or mixture and uses advised against

AdBlue®

Fuel additives **Identified uses** Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company name Ford Motor Company Ltd. **Address** Parts Distribution Centre Royal Oak Way South

NN11 8NT Daventry, Northants

United Kingdom

Telephone number +44 1327 305 198 **Address** Ford-Werke GmbH Edsel-Ford-Str. 2-14

50769 Köln

Germany

Telephone number +49 221 90-33333 E-mail sdseu@ford.com

1.4 Emergency telephone

number

+49 (0) 6132-84463 (GBK GmbH - 24/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms None Signal word None.

Precautionary statements

Prevention None. Response None. Storage None. **Disposal** None. Supplemental label information None

2.3. Other hazards The mixture contains no substance that fulfils the criteria of a PBT- or vPvB substance.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Material name: AdBlue®

The components are not hazardous or are below required disclosure limits.

SECTION 4: First aid measures

General information Get medical attention if any discomfort continues.

4.1. Description of first aid measures

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

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

Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation Eve contact

develops and persists.

Ingestion If ingestion of a large amount does occur, call a poison control centre immediately.

4.2. Most important symptoms and effects, both acute and

Symptoms may be delayed.

delayed

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing

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

Use fire-extinguishing media appropriate for surrounding materials.

media 5.2. Special hazards arising

from the substance or mixture

Fire may produce irritating, corrosive and/or toxic gases. Carbon monoxide. Carbon dioxide (CO2).

Nitrogen oxides (NOx). Ammonia.

5.3. Advice for firefighters

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

Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

Special fire fighting procedures

In case of fire: Stop leak if safe to do so. Evacuate the area promptly. Cool containers exposed to

heat with water spray and remove container, if no risk is involved.

Specific methods No unusual fire or explosion hazards noted.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency

personnel

For personal protection, see section 8 of the SDS.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the

SDS.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Dispose in accordance with all applicable regulations.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. 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.

6.4. Reference to other

sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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.

7.2. Conditions for safe storage, including any

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

incompatibilities 7.3. Specific end use(s)

Fuel additives

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Material name: AdBlue® SDS UK Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

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

Recommended monitoring

procedures

Follow standard monitoring procedures.

Derived no effect levels

(DNELs)

Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

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

General information Personal protection equipment should be chosen according to the CEN standards and in

discussion with the supplier of the personal protective equipment.

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

Skin protection

- Hand protection Nitrile rubber

> Glove thickness 0.4 mm. Break through time >= 480 min

Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see

www.kcl.de) or comparable product.

Hand protection in case of splash contact:

Nitrile rubber

Glove thickness 0.4 mm. Break through time >= 480 min

Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see

www.kcl.de) or comparable product.

The protective gloves to be used must comply with the specification of EU directive 89/686/EC and the resultant standard EN374. The above given information is based on laboratory test in line with EN374. The recommendation is only valid for the supplied product and the stated application. Special working conditions, like heat or mechanical strain, which deviate from the test conditions,

can reduce the protective effect provided by the recommended glove.

- Other Wear suitable protective clothing.

In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protection

Wear appropriate thermal protective clothing, when necessary. Thermal hazards

Hygiene measures 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.

Environmental exposure

controls

Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid. **Form** Liquid. Colour Colourless.

Odour Slight. Ammoniacal.

Odour threshold Not available.

Hq 9 - 10

-11.5 °C (11.3 °F) Melting point/freezing point Initial boiling point and boiling 100 °C (212 °F)

range

Flash point not applicable

Material name: AdBlue® SDS UK

Evaporation rate Not available.
Flammability (solid, gas) Not available.
Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

(%)

Not available.

Vapour pressureNot available.Vapour densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water)> 100 g/l solubleSolubility (other)Not available.Partition coefficientNot available.

(n-octanol/water)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Explosive properties Not available.

Oxidising properties Not available.

9.2. Other information

Density 1.09 g/cm3

Dynamic viscosity 1.4 mPa.s (@ 20 °C)

VOC (EU) not applicable

VOC (CH) < 3 %

SECTION 10: Stability and reactivity

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

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoidTemperatures exceeding the decomposition temperature.

10.5. Incompatible materials Calcium hypochlorite. Sodium hypochlorite. Acids. Alkalies. nitrite. Nitrates.

10.6. Hazardous Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

decomposition products

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Inhalation Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

Skin contact Prolonged skin contact may cause temporary irritation.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion May cause discomfort if swallowed.

Symptoms Not available.

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye

Based on available data, the classification criteria are not met.

irritation

Respiratory sensitisation

Skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Based on available data, the classification criteria are not met.

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Specific target organ toxicity - Based on available data, the classification criteria are not met. **single exposure**

Material name: AdBlue®

Specific target organ toxicity -

repeated exposure

Based on available data, the classification criteria are not met.

Based on available data, the classification criteria are not met.

Aspiration hazard

Mixture versus substance

information

No information available.

This product has no known adverse effect on human health. Other information

SECTION 12: Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the 12.1. Toxicity

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

12.2. Persistence and

degradability

Is regarded as inherently biodegradable.

12.3. Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient

n-octanol/water (log Kow)

Not available.

Bioconcentration factor (BCF) Not available. No data available. 12.4. Mobility in soil

12.5. Results of PBT

and vPvB assessment The mixture contains no substance that fulfils the criteria of a PBT- or vPvB substance.

12.6. 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 product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste 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).

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

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

06 10 99 15 01 06

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow Disposal methods/information

this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches

with chemical or used container. Dispose of contents/container in accordance with

local/regional/national/international regulations.

Dispose in accordance with all applicable regulations. Special precautions

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Not applicable.

Restrictions on use

This Safety Data Sheet complies with the requirements of Regulation (EC) No 2015/830. Other regulations

not applicable VOC (EU):

Directive 2012/18/EU on major accident hazards involving dangerous substances

Not applicable

National regulations Follow national regulation for work with chemical agents.

15.2. Chemical safety

No Chemical Safety Assessment has been carried out.

assessment

Material name: AdBlue® SDS UK

SECTION 16: Other information

List of abbreviations

AC: Article category.

acc., acc.to: according, according to.

ACGIH: American Conference of Governmental Industrial Hygienists.

AFNOR: French Institute for Standards (Association Française de Normalisation).

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures).

ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des merchandises dangereuses par route).

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).

AICS: Australian Inventory of Chemical Substances.

ANSI: American National Standards Institute.

AOEL: Acceptable Operator Exposure Level.

AOX: adsorbable organic halogen compounds.

approx.: approximately. ASTM: ASTM International.

ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).

BAM: Federal Institute for Materials Research and Testing, Germany (Bundesanstalt für

Materialforschung und -prüfung).

Maximum permissible concentration of biological working substances (BAT: Biologische Arbeitsstofftoleranzwerte).

BAuA: Federal Institute for Occupational Health and Safety, Germany (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin).

BCF: Bio-concentration factor.

BET: Brunauer-Emmett-Teller.

BLV: Biological Limit Value.

BLV: Biological Limit Value (BGW: Biologischer Grenzwert, Austria).

BMGV: Biological Monitoring Guidance Value (EH40,UK).

BSI: British Standards Institution.

BS: British Standard.

BOD5: Biochemical oxygen demand within 5 days.

BOD: Biochemical oxygen demand.

bw: Body weight. calcd.: calculated.

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization (Comité Européen de Normalisation).

CESIO: European Committee on Organic Surfactants and their Intermediates (Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques).

ChemRRV: Ordinance on the risk reduction related to chemical products (ChemRRV:

Chemikalien-Risikoreduktions-verordnung, Switzerland).

CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.

CMR: Substances classified as Carcinogenic, Mutagenic or toxic for Reproduction.

CNS: Central Nervous System.

CNT: Carbon nanotubes.

COD: Chemical Oxygen Demand.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

DETEC: Swiss Federal Department of the Environment, Transport, Energy and Communications.

DIN: German Standards Institute / German industrial norm (Deutsches Institut für Normung /

Deutsche Industrienorm).

DMEL: Derived Minimum Effect Level.

DNEL: Derived No Effect Level.

DOC: Dissolved organic carbon.

DPD: Directive 1999-45-EC / Dangerous Preparations Directive.

DSD: Directive 67/548-EC / Dangerous Substances Directive.

DSL: Canada, Domestic Substances List.

DU: Downstream User.

dw: dry weight.

e.g.: For example, for instance,

EBW: Exposure Based Waiving.

EC: European Community.

EC50: Effective Concentration 50%. ECHA: European Chemical Agency.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European norm.

Material name: AdBlue®

ENCS: Japan, Inventory of Existing and New Chemical Substances.

EPA: United States Environmental Protection Agency.

ERC: Environmental release category.

ES: Exposure scenario. EU: European Union

EUSES: European Union System for the Evaluation of Substances.

EWC/EWL: European Waste Catalogue.

GCL: General concentration limit.

gen.: general.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

GLP: Good Laboratory Practice.

GW/VL: Occupational exposure limit value.

GW-kw: Occupational exposure limit value - short term. GW-M/VL-M: Occupational exposure limit value – "Ceiling".

GWP: Global Warming Potential.

HPV: High Production Volume Chemicals. HEPA: High Efficiency Particulate Air.

IARC: International Agency for Research on Cancer.

IATA: International Air Transport Association.

IBC: Intermediate Bulk Container.

IBC Code: International Bulk Chemical (Code) (International Code for the Construction and

Equipment of Ships carrying Dangerous Chemicals in Bulk).

ICAO: International Civil Aviation Organization.

IC50: Inhibition Concentration 50%.

IECSC: Inventory of Existing Chemical Substances in China.

IMDG Code: International Maritime Dangerous Goods Code.

IMO: International Maritime Organization.

incl.: including, inclusive.

ISO: International Standards Organization.

IUCLID: International Uniform Chemical Information Database.

IUPAC: International Union for Pure Applied Chemistry.

KECI: Korea Existing Chemicals Inventory.

LCA: Life Cycle Assessment. LC: Lethal Concentration.

LC50: Lethal Concentration 50%.

LCLo: Lowest published lethal concentration.

LD50: Lethal Dose 50%. LEV: Local exhaust ventilation.

LOAEL: Lowest observed adverse effect level.

LOEC: Lowest observable effect concentration.

LOEL: Lowest observable effect level.

LPV: Low Production Volume Chemicals.

LQ: Limited Quantities.

Air Quality Control Regulation (LRV: Luftreinhalteverordnung, Switzerland).

TLV-STEL: Threshold limit value - Short-term exposure limit / Technical reference concentration - short-time value (TRK-Kzw = Technische Richtkonzentration - Kurzzeitwert).

Maximum allowable workplace concentration – instantaneous value (MAK-Mow: Maximale Arbeitsplatzkonzentration – Momentanwert, Austria)

Maximum allowable workplace concentration – daily mean value / Technical standard

concentration - daily mean value (MAK-Tmw, TRK-Tmw: Maximale Arbeitsplatzkonzentration -

Tagesmittelwert / TRK-Tmw = Technische Richtkonzentration – Tagesmittelwert, Austria).

MAK: Threshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG).

MARPOL: International Convention for the Prevention of Pollution From Ships.

MTD: Maximum tolerated dose.

MWCNT: Multi-walled carbon nanotubes.

n.a.: not applicable. N/A: Not available.

n.d.: not determined.

NLP: No Longer Polymers.

NDSL: Canada, Non-Domestic Substances List.

NF: French Norm (See AFNOR).

NFPA: National Fire Protection Association.

NIOSH: National Institute for Occupational Safety & Health.

NOAEC: No Observed Adverse Effect Concentration.

NOAEL: No observed adverse effect level.

NOEC: No observed effect concentration.

NOEL: No observed effect level. NTP: National Toxicology Program.

NZIoC: New Zealand Inventory of Chemicals.

Material name: AdBlue® SDS UK

ODP: Ozone Depletion Potential.

OECD: Organization for Economic Cooperation and Development.

OEL: Occupational Exposure Limit.

org.: organic.

OSHA: Occupational Safety & Health Administration.

PAH: Polycyclic Aromatic Hydrocarbons. PBT: Persistent, bioaccumulative, toxic.

PC: Product category. PE: Polyethylene.

PEC: Predicted Environmental Concentration.

PEL: Permissible Exposure Limit. PIC: Prior Informed Consent.

PICCS: Philippines Inventory of Commercial Chemical Substances.

PNEC: Predicted No Effect Concentration.

POCP: Photochemical ozone creation potential (Photochemisches Ozonbildungspotenzial).

POP: Persistent Organic Pollutant.

PPORD: Product and Process Oriented Research and Development.

PPE: Personal Protective Equipment.

PROC: Process category. RA: Risk Assessment.

RAR: Risk Assessment Report.

RCRA: Resource Conservation Recovery Act.

REACH: Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals). RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).

RMM: Risk Management Measure.

RTECS: Registry of Toxic Effects of Chemical Substances.

QSAR: Quantitative Structure Activity Relation.

SARA: Superfund Amendments and Reauthorization Act. SADT: Self-Accelerating Decomposition Temperature.

SCL: Specific concentration limit. SEA: socio economic analysis. STEL: Short-term Exposure Limit. STP: Sewage treatment plant.

SU: Sector of use.

SVHC: Substance of Very High Concern. SWCNT: single-walled carbon nanotubes.

ThOD: Theoretical oxygen demand.

TOC: Total Organic Carbon. TLV: Threshold Limit Value. TRA: Targeted Risk Assessment.

TRGS: Technical Rules for Hazardous Substances (German Standard)

TSCA: Toxic Substance Control Act. TWA: Time Weighted Average.

UC: Use category.

UDS: Use descriptor system.

UEC: Use and exposure categories.

UN: United Nations.

UN RTDG: United Nations Recommendations on the Transport of Dangerous Goods.

UVCB: Unknown or Variable Composition, Complex Reaction Products, and Biological Materials. Regulation on combustible liquids (VbF: Verordnung über brennbare Flüssigkeiten, Austria).

Regulation of the Austria Minister for Labor and Social Affairs regarding health surveillance at the workplace (VGÜ = Verordnung des Bundesministers für Arbeit und Soziales über die

Gesundheitsüberwachung am Arbeitsplatz). VOC: Volatile organic compounds.

vPvB: very Persistent, very Bioaccumulative.

WEL-TWA: Workplace Exposure Limit-Long term exposure limit (8-hour TWA(=time weighted average)reference period).

WEL-STEL: Workplace Exposure Limit-Short term exposure limit (15-minute reference period).

WoE: Weight of evidence.

Ford Internal Ref.: 196734 Version #: 1.1 Revision date: 06-September-2016 Issue date: 09-March-2016

WHMIS: Workplace Hazardous Materials Information System.

WHO: World Health Organization.

wwt: wet weight. Not available.

References

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Material name: AdBlue® SDS UK Full text of any H-statements not written out in full under

None.

Sections 2 to 15
Revision information

SECTION 2: Hazards identification: Hazard statements

SECTION 2: Hazards identification: Supplemental label information

Physical & Chemical Properties: Multiple Properties SECTION 15: Regulatory information: Labelling

Training information

Dicalaimar

Disclaimer

Follow training instructions when handling this material.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet

is not necessarily valid for the new made-up material.

Material name: AdBlue® SDS UK