1. Identification of the substance/mixture and of the company/undertaking.

1.1 Product identifier: Autol Desolite K
1.2 Application: Industrial applications: Fuel additive.
1.3 Details of the supplier of the safety data sheet:
   Eni Schmiertechnik GmbH
   Paradiesstr. 14, D-97080 Würzburg
   Tel. (+49) 931 - 900 98-0   Fax (+49) 931-98442
   http://www.enischmiertechnik-datenblaetter.de
   Advising/Support: Technical Department, Tel. (+49) 931 900 98-145
   technik.wuerzburg@agip.de

2. Hazards identification.

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Asp. Tox. 1, H304
See section 16 for the full text of the H statements declared above.
See section 11 for the more detailed information on health effects and symptoms

2.2 Label elements:
   Hazard pictograms:
   Signal word: Danger
   Hazard statements: H304 – May be fatal if swallowed and enters airways.
   Supplemental label Not applicable.
   Elements:
   Precautionary statements
   General: Not applicable.
   Prevention: Not applicable.
   Response: P 301 + P310 + P331 – IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
   Storage: P 405 – Store locked up.
   Disposal: P 501 – Dispose of contents and container in accordance with all local, regional, national and international regulations.
   Hazardous ingredients: Distillates (petroleum), hydrotreated light.
   Special packaging requirements
   Containers to be fitted with Not applicable.
   Child-resistant fastenings: Not applicable.
   Tactile warning of danger: Not applicable.

2.3 Other hazards

Other hazards which do not Result in classification: None known.
3. Composition/information on ingredients.

3.1 Substances:

<table>
<thead>
<tr>
<th>Product / ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Type</th>
</tr>
</thead>
</table>

Additional information

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

Our REACH (pre-) registration DO NOT cover the following:

1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations

Customers and other third parties importing and/or re-importing our product into Europe will need either:

- Their own (pre-) registration for substance contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
- in the case of importation only, to make use of the “Only Representative” provisions, if available.

4. First aid measures.

4.1 Description of first aid measures:

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: get medical attention immediately. Call a poison centre or physician. Remove dentures if any. Wash out moth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so
that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- **Eye contact:** Not known significant effects or critical hazards.
- **Inhalation:** Not known significant effects or critical hazards.
- **Skin contact:** Not known significant effects or critical hazards.
- **Ingestion:** May be fatal if swallowed and enters airways.

Over-exposure sings/symptoms

- **Eye contact:** No specific data.
- **Inhalation:** No specific data.
- **Skin contact:** No specific data.
- **Ingestion:** Adverse symptoms may include the following: Nausea or vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

- **Notes to physician:** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- **Specific treatments:** No specific treatment.

5. Fire fighting measures.

5.1 Extinguishing media:

- **Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire
- **Unsuitable extinguishing media:** Not known

5.2 Special hazards arising from the substance or mixture

- **Hazard from the Substance or mixture:** In a fire or if heated, a pressure increase will occur and the container may burst.
- **Hazardous thermal decomposition products:** Decomposition products may include the following materials: carbon dioxide, carbon monoxide.

5.3 Advice for fire fighters:

- **Special protective actions for Fire fighters:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- **Special protective equipment for firefighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) confirming to European standard EN 469 will provide a basic level of protection for chemical incidents.
6. Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from the entering. Do not touch or walk through split material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency Responders: If specialised clothing is required to deal with the spillage, take note of any information in section 8 on suitable and unsuitable materials. See also the information in “For non-Emergency personnel.”

6.2 Environmental precautions: Avoid dispersal of split material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up:

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbents material may pose the same hazard as the split product.

6.4 Reference to other sections: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

7. Handling and storage.

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling:

Protective measures: Put on appropriate personal protective equipment (See section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general Occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities:

Storage: Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Keep container tightly closed and sealed until ready to use. Containers that have been opened must be carefully released and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
7.3 Specific end use(s):
- Recommendations: Not available.
- Industrial sector specific: Not available.

8. Exposure controls/personal protection.

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters:

Occupational exposure limits:

<table>
<thead>
<tr>
<th>Product/Ingredient</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotrated light</td>
<td>EU OEL (Europe 2009)</td>
</tr>
<tr>
<td></td>
<td>Supplier’s information Reciprocal Calculation Procedure (RCP) : 1200 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

Recommended monitoring Procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs
No DELs available.

PNECs
No PNECs available.

8.2 Exposure controls

Appropriate engineering Controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures
- Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before, eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this if necessary to avoid exposure to liquid splashes, mists, gases or dust. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risk involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties.

9.1 Information on basic physical and chemical properties:

**Appearance**
- Physical state: Liquid.
- Colour: Colourless.
- Odour: Not available.
- Odour threshold: Not available.
- pH: Not available.
- Melting/freezing point: <-39°C
- Initial boiling point and range: Lowest known value: 190 to 280°C (374 to 536 °F) (Distillates (petroleum), hydrotreated light)
- Flashpoint: Closed cup: 80°C (176°F)
- Evaporation rate: 600 (Distillates (petroleum), hydrotreated light) compared with ether (anhydrous)
- Flammability (solid, gas): Not available.
- Upper/lower flammability or explosive limits: Greatest known range: Lower: 0.5% Upper 8% (Distillates (petroleum), hydrotreated light)
- Vapour pressure: Highest known value 0.05 kPa (0.4 mm Hg) (at 20°C) (Distillates (petroleum), hydrotreated light)
- Vapour density: Highest known value >1 (Air =1) (Distillates (petroleum), hydrotreated light)
- Relative density: Not available
- Density: 0.805 g/cm³ [15°C (59°F)]
- Solubility(ies): Insoluble in the following materials: cold water, hot water.
- Partition coefficient (n-octanol/water): Not available.
- Auto-ignition temperature: Lowest known value: >230 °C (>446°F) (Distillates (petroleum), hydrotreated light).
10. Stability and reactivity.

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: This product is stable.

10.3 Possibility of hazardous Reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: No specific data.

10.5 Incompatible materials: No specific data.

10.6 Hazardous decomposition products: under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information.

11.1 Information on toxicological effects:

Acute toxicity:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Species</th>
<th>Result</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum)</td>
<td>OECD 403 Acute Inhalation</td>
<td>Rat</td>
<td>LC 50 Inhalation Vapour</td>
<td>&gt;5000 mg/m³ 8 hours</td>
</tr>
<tr>
<td>Hydrotreated light</td>
<td>Toxicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OECD 402 Acute Dermal</td>
<td>Rabbit</td>
<td>LD50 Dermal</td>
<td>&gt;5000 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Toxicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OECD 401 Acute Oral</td>
<td>Rat</td>
<td>LD 50 Oral</td>
<td>&gt;5000 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Toxicity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sensitisation:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum)</td>
<td>-</td>
<td>Rat</td>
<td>Not sensitizing</td>
</tr>
<tr>
<td>Hydrotreated light</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Experiment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum)</td>
<td>-</td>
<td>Experiment: in vivo</td>
<td>Negative</td>
</tr>
<tr>
<td>Hydrotreated light</td>
<td></td>
<td>Subject: Bacteria</td>
<td></td>
</tr>
</tbody>
</table>

Information on likely routes of exposure: Not available.

Potential acute health effects:

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.
Ingestion: May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: Averse symptoms may include the following nausea or vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure.

Short term exposure
Potential immediate effects: Not available
Potential delayed effects: Not available.

Long term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available

General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.


12.1 Toxicity:

12.2 Persistence and degradability: Not relevant

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum)</td>
<td>OECD 301F Ready Biogradability Manometric Respirometry Test</td>
<td>69% - Readily – 28 days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biogradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum) hydrotreated light</td>
<td>-</td>
<td>-</td>
<td>Leicht</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogPow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum) hydrotreated light</td>
<td>6 to 8</td>
<td>-</td>
<td>high</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

Soil/water partition: Not available.
Coefficient (Koc): Not available.
Mobility: Not available.
12.5 Results of PBT and vPvB assessment:
- PBT: Not applicable.
- vPvB: Not applicable.

12.6 Other adverse effects: No known significant effects or critical hazards.


The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its containers must be disposed in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of split material and runoff and contact with soil, waterways, drain and sewers.

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>-</td>
<td>SUBSTANCE WITH A FLASH-POINT ABOVE 60°C AND NOT MORE THAN 100 °C (Distillates(petroleum), hydrotreated light)</td>
<td>-</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>-</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>14.4 Packaging group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Additional information</td>
<td>-</td>
<td>The product is only regulated as a dangerous good when transported in tank vessels</td>
<td>-</td>
</tr>
</tbody>
</table>

14.6 Special precautions for user

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

15. Regulatory information.

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV – List of substances subject to authorisation

Substance of very high concern

None of the components are listed.

Annex XVII – Restrictions: Not applicable.

On the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other EU regulations

Black List Chemicals: Not listed.

Priority List Chemicals: Not determined.

Industrial emissions (integrated pollution prevention and control)-Air: Not listed.
Industrial emissions
(integrated pollution prevention and control)
Water:

Chemical Weapons
Convention List Schedule I
Chemicals:

Chemical Weapons
Convention List Schedule II
Chemicals:

Chemical Weapons
Conventional List Schedule III
Chemicals:

Inventory lists:

Australian inventory (AICS):
All components are listed or exempted.

Canada inventory:
All components are listed or exempted.

China inventory (IECSC):
All components are listed or exempted.

EU Inventory (EINECS/ELINCS/NLP):
All components are listed or exempted.

Japan inventory (ENCS):
Japan inventory (ENCS): All components are listed or exempted.

Japan inventory (ISHL): Not determined.

Korea inventory (KECI):
All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC):
All components are listed or exempted.

Philippines inventory (PICCS):
All components are listed or exempted.

Taiwan inventory (TCSI):
All components are listed or exempted.

United States inventory:
(TSCA 8b)
All components are listed or exempted.

15.2 Chemical safety assessment:
This product contains substances for which Chemical Safety Assessment are still required.

16. Other information.

Abbreviations and acronyms:
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No. Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asp. Tox. 1, H304</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>
Full text of abbreviated H Statements: H 304 May be fatal if swallowed and enters airways.

Full text of classification [CLP/GHS]: Asp. Tox. 1, H304 ASPIRATION HAZARD – Category 1 EUH066 Repeated exposure may cause skin dryness or cracking.

This information relates only to the specific product and may not be valid if the product is used in combination with any other material or in any process.
The informations in this sheet are according to our best knowledge at the date of printing.