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

1.1 Product identifier

Trade name: STIHL Resin solvent Superclean

Article number:
0782 420 1001 / 0782 420 1002  [04.07.2014]

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

Sector of Use
SU21 Consumer uses: Private households / general public / consumers
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product category PC35 Washing and cleaning products (including solvent based products)

Application of the substance / the mixture Resin and oil dissolver

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
ANDREAS STIHL AG & Co. KG
Badstr. 115
D-71336 Waiblingen
Tel: +49 (0)7151-26-3237
Fax: +49 (0)7151-26-8-3237
info@stihl.com

Further information obtainable from:
Produktmanagement Forsttechnik
Tel: +49 (0)7151-26-3237
Fax: +49 (0)7151-26-83237

1.4 Emergency telephone number:
Poisen Center Munich:
Tel.: +49 (0)89 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 flame


Classification according to Directive 67/548/EEC or Directive 1999/45/EC

F+: Extremely flammable

R12: Extremely flammable.

Information concerning particular hazards for human and environment: Warning! Pressurized container.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms GHS02

Signal word Danger

Hazard statements
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

Precautionary statements
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251 Do not pierce or burn, even after use.
P211 Do not spray on an open flame or other ignition source.
P271 Use only outdoors or in a well-ventilated area.
P260 Do not breathe spray.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description: Formulation consisting of pressurised gas and solvents with additives

<table>
<thead>
<tr>
<th>CAS: 72623-86-0</th>
<th>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</th>
<th>25-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 276-737-9</td>
<td>Asp. Tox. 1, H304</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119474878-16-XXXX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC number: 926-141-6</td>
<td>Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</td>
<td>25-50%</td>
</tr>
<tr>
<td>Reg.nr.: 01-2119456620-43-XXXX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 106-97-8</td>
<td>butane</td>
<td>10-15%</td>
</tr>
<tr>
<td>EINECS: 203-448-7</td>
<td>F+ R12</td>
<td></td>
</tr>
<tr>
<td>Flam. Gas 1, H220; Press. Gas, H280</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 74-98-6</td>
<td>propane</td>
<td>10-15%</td>
</tr>
<tr>
<td>EINECS: 200-827-9</td>
<td>F+ R12</td>
<td></td>
</tr>
<tr>
<td>Flam. Gas 1, H220; Press. Gas, H280</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 75-28-5</td>
<td>isobutane</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>EINECS: 200-857-2</td>
<td>F+ R12</td>
<td></td>
</tr>
<tr>
<td>Flam. Gas 1, H220; Press. Gas, H280</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regulation (EC) No 648/2004 on detergents / Labelling for contents

aliphatic hydrocarbons ≥ 30%
anionic surfactants < 5%
perfumes

Additional information:
Note: Any entry in the EC column that begins with the number "9" is a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance. See Section 15 for additional CAS number information for the substance.
For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information:
Take affected persons out into the fresh air.
Remove soiled clothing

After inhalation:
Supply fresh air.
In the event of irritation of the respiratory tract, dizziness, nausea or unconsciousness, call medical assistance immediately.

After skin contact:
Generally the product does not irritate the skin.
Wash the areas of skin affected with water and a mild detergent.

After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:
Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed
Headache
Nausea
Drowsiness
Unconsciousness

4.3 Indication of any immediate medical attention and special treatment needed
Treatment in accordance with the doctor's assessment of the patient's condition. Symptomatic treatment.
SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
- Water haze
- Foam
- Fire-extinguishing powder
- Carbon dioxide

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture
In case of fire, the following can be released:
- Carbon monoxide and carbon dioxide
- Sulphur dioxide (SO2)

5.3 Advice for firefighters
Protective equipment:
- Do not inhale explosion gases or combustion gases.
- Wear self-contained respiratory protective device.
- Wear fully protective suit.

Additional information
- Cool endangered receptacles with water spray.
- Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Keep away from ignition sources.
- Ensure adequate ventilation.
- Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:
- Do not allow to penetrate the ground/soil.
- Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:
- Ensure adequate ventilation.
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:
- Keep ignition sources away - Do not smoke.
- Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.
- Do not spray onto a naked flame or any incandescent material.
- Highly volatile, flammable constituents are released during processing.
- Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
- Provide solvent resistant, sealed floor.
- Observe official regulations on storing packagings with pressurized containers.

Information about storage in one common storage facility: Store away from foodstuffs.
Further information about storage conditions:
- Protect from heat and direct sunlight.
- Store receptacle in a well ventilated area.
- Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
- Recommended storage temperature: 20 °C.
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>WEL (Great Britain) Short-term value: 1810 mg/m³, 750 ppm</th>
<th>Long-term value: 1450 mg/m³, 600 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>butane</td>
<td>Carc (if more than 0.1% of buta-1.3-diene)</td>
<td></td>
</tr>
</tbody>
</table>

DNELs

<table>
<thead>
<tr>
<th>Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based</th>
<th>DNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalative</td>
<td></td>
</tr>
<tr>
<td>1.2 mg/m³ (consumer) (local / longterm (repeated))</td>
<td></td>
</tr>
<tr>
<td>5.4 mg/m³ (worker) (local / longterm (repeated))</td>
<td></td>
</tr>
</tbody>
</table>

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Suitable technical control devices

Ensure good ventilation. This can be achieved by localised extraction or general ventilation. If this is not sufficient to keep the concentration below the occupational exposure limit, suitable breathing protection is to be worn.

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals. Wash hands before breaks and at the end of work. Keep away from foodstuffs, beverages and feed.

Respiratory protection:

Not required in normal cases

If the occupational exposure limit is exceeded:

The following breathing protection is recommended:

Respiratory filter for organic gases and vapours (Type A)

Identification colour: Brown

[DIN EN 14387]

Protection of hands: Not required in normal cases

Eye protection: Not required in normal cases

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Aerosol

Colour:

Yellow

Odour:

Characteristic

Odour threshold:

Not determined.

Important information on protection of health and environment, and on safety:

data of the content without propellant

pH-value:

Not applicable.

Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 180 - 270 °C

Flash point: 89 °C (DIN 51758)

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.
Trade name: STIHL Resin solvent Superclean

Self-igniting: Not determined.

Danger of explosion: Not determined.
In use, may form flammable/explosive vapour-air mixture.

Explosion limits:
Lower:
Explosion limits components:
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based:
0.5 Vol.%
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics:
0.6 Vol%
Upper:
Explosion limits components:
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based:
5.0 Vol%
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics:
7.0 Vol%

Vapour pressure: Not determined.

Density at 20 °C: 0.82 - 0.83 g/cm³
Relative density Not determined.
Vapour density Not determined.
Evaporation rate Not determined.

Solubility in / Miscibility with water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:
Flow time at 20 °C 10 - 15 s (DIN EN ISO 2431 / 4mm)
Dynamic: Not determined.
Kinematic at 40 °C: <7 mm²/s (DIN 51562)
Evaporation rate:

SECTION 10: Stability and reactivity

10.1 Reactivity: No dangerous reactions known.
10.2 Chemical stability: Stable under normal conditions.
10.3 Possibility of hazardous reactions: Develops readily flammable gases/fumes.
10.4 Conditions to avoid:
An increase in pressure may lead to bursting.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.
Keep ignition sources away - Do not smoke.
See Section 7 for information on safe handling.
10.5 Incompatible materials: strong oxidizing agents
10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects: There are no toxicological findings on this mixture.
Acute toxicity:

LD/LC50 values relevant for classification:

72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Oral
LD50 >5000 mg/kg (rat)

Dermal
LD50 >2000 mg/kg (rabbit)

Inhalative
LC50/4h >5000 mg/l (rat)
SECTION 12: Ecological information

12.1 Toxicity There are no ecotoxicological data available on this mixture.

Aquatic toxicity:

72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based
EC50 / 48h >100 mg/l (Crustacea)
ErC 50 / 72h >100 mg/l (algae)
LC 50 / 96 h >100 mg/l (fish)

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics
ELO 48 h 1000 mg/l (Daphnia magna)
ELO 72 h 1000 mg/l (Pseudokirchneriella subcapitata)
LLO 96 h 1000 mg/l (Oncorhynchus mykiss)

12.2 Persistence and degradability
The surface-active substances contained in the product meet the requirement of the EU Detregent Regulation (EC/648/2004) for ultimate biodegradability for surfactants in detergents.

72623-86-0 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based
Biodegradation 53 % (-) (28d)

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Biodegradation 69 % (-) (28d)

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Additional ecological information:
General notes: The product may not be released into the environment without control.

12.5 Results of PBT and vPvB assessment Not applicable.
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dangerous waste in accordance with the Directive on the List of Waste Materials
Recommendation Waste must be disposed of while observing the local, official regulations.
SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA UN1950

14.2 UN proper shipping name
ADR 1950 AEROSOLS
IMDG AEROSOLS
IATA AEROSOLS, flammable

14.3 Transport hazard class(es)
ADR

Class 2 5F Gases.
Label 2.1

IMDG, IATA

Class 2.1
Label 2.1

14.4 Packing group
ADR, IMDG, IATA Void

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
see Sections 6-8
Warning: Gases.

Transport/Additional information:

ADR
Limited quantities (LQ) 1L
Transport category 2
Tunnel restriction code D

UN "Model Regulation": UN1950, AEROSOLS, 2.1

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
The following substance(s) in this product is (are) identified by CAS number either in countries not subject to the REACH regulation or in regulations not yet updated with the new naming convention for hydrocarbon solvents.
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics: CAS 64742-47-8
European Directives:
SEVESO category (96/82/EC): 8

National regulations:
Information about limitation of use:
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases
H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
R12 Extremely flammable.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.

Abbreviations and acronyms:
vPvB: very persistent and very bioaccumulative
PBT: persistent, bioaccumulative, toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
NOEL = No Observed Effect Level
NOEC = No Observed Effect Concentration
LC = lethal Concentration
EC50 = half maximal effective concentration
log POW = Octanol / water partition coefficient
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
ATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
IOELV = indicative occupational exposure limit values

* Data compared to the previous version altered.