

Article No.: 34501040  
Print date: 10.12.2018  
Version: 3.1

Empire Heavy Duty 400 ml  
Revision date: 23.05.2018  
Issue date: 23.05.2018

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

### 1.1. Product identifier

Identification of the substance or mixture Empire Heavy Duty 400 ml

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

#### Relevant identified uses:

impregnation spray for leather and textiles

### 1.3. Details of the supplier of the safety data sheet

#### supplier (manufacturer/importer/downstream user/distributor)

Nanogate Textile & Care Systems GmbH

Zum Schacht 3

D-66287 Göttingen

Telephone: +49 - (0)6825 / 9591 - 0

Telefax: +49 - (0)6825 / 9591 - 852

E-mail info@nanogate.com

#### Dept. responsible for information:

E-mail (competent person)

msds@nanogate.com

### 1.4. Emergency telephone number

111 (England, Wales, Scotland)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Aerosol 1 / H222

Aerosol

Extremely flammable aerosol.

Aerosol 1 / H229

Aerosol

Pressurised container: May burst if heated.

STOT SE 3 / H336

Specific target organ toxicity (single exposure)

May cause drowsiness or dizziness.

Aquatic Chronic 3 / H412

Hazardous to the aquatic environment

Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

The product is classified and labelled according to EC directives or corresponding national laws.

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

#### Hazard pictograms



**Danger**

#### Hazard statements

H222

Extremely flammable aerosol.

H229

Pressurised container: May burst if heated.

H336

May cause drowsiness or dizziness.

H412

Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P101

If medical advice is needed, have product container or label at hand.

P102

Keep out of reach of children.

P103

Read label before use.

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211

Do not spray on an open flame or other ignition source.

P251

Do not pierce or burn, even after use.

P260

Do not breathe aerosol.

P271

Use only outdoors or in a well-ventilated area.

P273

Avoid release to the environment.

P410 + P412

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

#### contains:

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

#### Supplemental Hazard information (EU)

EUH066

Repeated exposure may cause skin dryness or cracking.

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### 2.3. Other hazards

Caution/Important note: Inhalation may be damaging to health. Use only outdoors or in a well ventilated area. Spray for just a few seconds. Spray larger leather products or textiles outdoors only and allow to air-dry thoroughly. Keep away from children!

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients

#### Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. INDEX No.	REACH No. Chemical name classification: // Remark	Wt %
203-448-7 106-97-8 601-004-00-0	01-2119474691-32 butane compressed gas H280 / Flam. Gas 1 H220	25 < 35
204-658-1 123-86-4 607-025-00-1	01-2119485493-29 n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	10 < 12,5
927-241-2 64742-48-9	01-2119471843-32 hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / STOT SE 3 H336 / Aquatic Chronic 3 H412	35 < 50
200-661-7 67-63-0 603-117-00-0	01-2119457558-25 propane-2-ol Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	3 < 5
200-827-9 74-98-6 601-003-00-5	01-2119486944-21 propane compressed gas H280 / Flam. Gas 1 H220	5 < 7
200-857-2 75-28-5 601-004-00-0	01-2119485395-27 isobutane compressed gas H280 / Flam. Gas 1 H220	1 < 3

#### Additional information

Full text of classification: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

#### In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

#### Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

#### After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

#### After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

### 4.2. Most important symptoms and effects, both acute and delayed

In all cases of doubt, or when symptoms persist, seek medical advice.

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

## SECTION 5: Firefighting measures

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#### 5.1. Extinguishing media

**Suitable extinguishing media:**

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

**Extinguishing media which must not be used for safety reasons:**

strong water jet

#### 5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

#### 5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool closed containers that are near the source of the fire.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

#### 6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

#### 6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Advices on safe handling**

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

**Precautions against fire and explosion:**

Vapours are heavier than air. Vapours form explosive mixtures with air.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storage rooms and vessels**

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRBS 2153)".

**Hints on joint storage**

Keep away from strongly acidic and alkaline materials as well as oxidizers.

**Further information on storage conditions**

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

#### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use. Read label before use.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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### Occupational exposure limit values

butane

INDEX No. 601-004-00-0 / EC No. 203-448-7 / CAS No. 106-97-8

WEL, TWA: 1450 mg/m<sup>3</sup>; 600 ppm

WEL, STEL: 1810 mg/m<sup>3</sup>; 750 ppm

Remark: (Carc, only applies if Butane contains more than 0.1% of buta-1,3-diene)

n-butyl acetate

INDEX No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

MEL/OES, TWA: 724 mg/m<sup>3</sup>; 150 ppm

MEL/OES, STEL: 966 mg/m<sup>3</sup>; 200 ppm

propane-2-ol

INDEX No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0

WEL, TWA: 999 mg/m<sup>3</sup>; 400 ppm

WEL, STEL: 1250 mg/m<sup>3</sup>; 500 ppm

### Additional information

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

### 8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

#### Occupational exposure controls

##### Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Recommended Respiratory protection: Respiratory protective device with half mask filter material type A. The standards EN 136, 140 and 405 of the European Commission for Standardization (CEN) make recommendations to respirators, the standards EN 149 and EN 143 provide recommendations to respiratory filters.

##### Hand protection

For prolonged or repeated handling the following glove material must be used: FKM (fluoro rubber) / NBR (Nitrile rubber)

Thickness of the glove material  $\geq$  0,7 mm

Breakthrough time (maximum wearing time) > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

##### Eye protection

Wear closely fitting protective glasses in case of splashes.,

##### Protective clothing

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

##### Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

##### Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance:

Physical state:

Liquid

Colour:

colourless

Odour:

like organic solvents

Odour threshold:

not determined

pH at 20 °C::

not applicable

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<b>Melting point/freezing point:</b>	<b>not determined</b>
<b>Initial boiling point and boiling range:</b>	<b>-11 °C</b> Source: isobutane
<b>Flash point:</b>	<b>-60 °C</b> Method: DIN 51755 part 1
<b>Evaporation rate:</b>	<b>0,5 mg/s</b> Source: hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics
<b>Flammability (solid, gas):</b>	
<b>Burning time (s):</b>	<b>not determined</b>
<b>Upper/lower flammability or explosive limits:</b>	
<b>Lower explosion limit:</b>	<b>1,17 Vol-%</b>
<b>Upper explosion limit:</b>	<b>12 Vol-%</b> Source: propane-2-ol
<b>Vapour pressure at20 °C::</b>	<b>1277,404 mbar</b>
<b>Vapour density:</b>	<b>not applicable</b>
<b>Relative density:</b>	
<b>Density at20 °C::</b>	<b>0,70 g/cm<sup>3</sup></b> Method: DIN EN ISO 15212-1
<b>Solubility(ies):</b>	
<b>Water solubility (g/L) at20 °C::</b>	<b>insoluble</b>
<b>Partition coefficient: n-octanol/water:</b>	<b>see section 12</b>
<b>Auto-ignition temperature:</b>	<b>238 °C</b> Source: hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics
<b>Decomposition temperature:</b>	<b>not determined</b>
<b>Viscosity at20 °C::</b>	<b>&lt; 10 mPa·s</b> Method: DIN 53019
<b>Explosive properties:</b>	<b>not applicable</b>
<b>Oxidising properties:</b>	<b>not applicable</b>

## 9.2. Other information

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

#### 10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

#### 10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

#### 10.4. Conditions to avoid

Hazardous decomposition byproducts may form with exposure to high temperatures.

#### 10.5. Incompatible materials

#### 10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

### SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]

No data on preparation itself available.

#### 11.1. Information on toxicological effects

##### Acute toxicity

n-butyl acetate

oral, LD50, Rat: 10760 mg/kg

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Method: OECD 423  
dermal, LD50, Rabbit: > 14112 mg/kg  
Method: OECD 402  
inhalative (Gases), LC50, Rat: 23,4 ppmV (4 h)  
Method: OECD 403

propane-2-ol  
oral, LD50, Rat: 5280 mg/kg  
Method: OECD 401  
dermal, LD50, Rabbit: 13900 mg/kg  
Method: OECD 402  
inhalative (vapours), LC50, Rat: > 25 mg/l (6 h)  
Method: OECD 403

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics  
oral, LD50, Rat: 5000 mg/kg  
Method: OECD 401  
dermal, LD50, Rabbit: > 5000 mg/kg  
Method: OECD 402  
inhalative (vapours), LC50, Rat: > 4951 mg/l (4 h)  
Method: OECD 403

**skin corrosion/irritation; Serious eye damage/eye irritation**

n-butyl acetate  
Skin, Rabbit  
Method: OECD 404  
eyes  
Method: OECD 405

propane-2-ol  
eyes  
Method: OECD 405  
Liquid splashes can lead to irritations of the eyes.

**Respiratory or skin sensitisation**

n-butyl acetate  
Skin, Guinea pig: ; evaluation not sensitising.  
Method: OECD 406

**Specific target organ toxicity**

Toxicological data are not available.

**Aspiration hazard**

Toxicological data are not available.

**Practical experience/human evidence**

Other observations:  
Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

**Overall Assessment on CMR properties**

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

**Remark**

There is no information available on the preparation itself .

**SECTION 12: Ecological information**

**overall evaluation**

Classification according to Regulation (EC) No 1272/2008 [CLP]  
There is no information available on the preparation itself .  
Do not allow to enter into surface water or drains.

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### 12.1. Toxicity

n-butyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 18 mg/l (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/l (48 h)

Algae toxicity, ErC50, Desmodesmus subspicatus: 647,7 mg/l (72 h)

propane-2-ol

Algae toxicity, ErC50: > 1000 mg/l

, EC50, Scenedesmus subspicatus: > 100 mg/l (72 h)

Bacteria toxicity: > 100 mg/l

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 22 - 46 mg/l (48 h)

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1000 mg/l (72 h)

#### Long-term Ecotoxicity

n-butyl acetate

Algae toxicity, NOEC, Desmodesmus subspicatus: 200 mg/l

Inhibition of growth rate.

Bacterial toxicity:, IC50:, Tetrahymena: 356 mg/l (40 h)

### 12.2. Persistence and degradability

n-butyl acetate

Biodegradation:, aerobic: 83 % (28 D); evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301D/ EEC 92/69/V, C.4-E

propane-2-ol

: 95 % (5 D); evaluation Readily biodegradable (according to OECD criteria).

hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

Biodegradation: 89 % (28 D); evaluation Readily biodegradable (according to OECD criteria).

### 12.3. Bioaccumulative potential

n-butyl acetate

Partition coefficient: n-octanol/water: 2,3

Method: OECD 117

Surface tension:, 1 g/l; 20°C: 61,3 mN/m

Method: OECD 115

### 12.4. Mobility in soil

Toxicological data are not available.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Appropriate disposal / Product

#### Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

#### List of proposed waste codes/waste designations in accordance with EWC

160504 Gases in pressure containers (including halons) containing hazardous substances

#### packaging

#### Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

## SECTION 14: Transport information

### 14.1. UN number

UN 1950

### 14.2. UN proper shipping name

Land transport (ADR/RID):

Aerosols, flammable

**Safety Data Sheet**  
**according to Regulation (EC) No. 1907/2006 (REACH)**  
**according to Regulation (EU) 2015/830**



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Sea transport (IMDG): AEROSOLS  
 Air transport (ICAO-TI / IATA-DGR): Aerosols, flammable

**14.3. Transport hazard class(es)**

2.1

**14.4. Packing group**

not applicable

**14.5. Environmental hazards**

Land transport (ADR/RID) not applicable

Marine pollutant not applicable

**14.6. Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

**Further information**

**Land transport (ADR/RID)**

tunnel restriction code D

**Sea transport (IMDG)**

EmS-No. F-D, S-U

**Air transport (ICAO-TI / IATA-DGR)**

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

not applicable

**SECTION 15: Regulatory information**

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

**EU legislation**

**VOC Switzerland:**

weight fraction in %: 99,50

**National regulations**

**Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

**15.2. Chemical Safety Assessment**

**For the following substances of this preparation a chemical safety assessment has been carried out:**

EC No. CAS No.	Chemical name	REACH No.
204-658-1 123-86-4	n-butyl acetate	01-2119485493-29
927-241-2 64742-48-9	hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, aromatics	<2% 01-2119471843-32
200-661-7 67-63-0	propane-2-ol	01-2119457558-25

**SECTION 16: Other information**

**Full text of classification in section 3:**

compressed gas / H280	Gases under pressure	Contains gas under pressure; may explode if heated.
Flam. Gas 1 / H220	flammable gases	Extremely flammable gas.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.



**Safety Data Sheet**  
**according to Regulation (EC) No. 1907/2006 (REACH)**  
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Eye Irrit. 2 / H319

Serious eye damage/eye irritation

Causes serious eye irritation.

**Further information**

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.