



## Safety Data Sheet according to (EC) No 1907/2006

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Loctite 3425B- Kit component

sds no. : 152800  
V004.1

Revision: 16.02.2011  
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### 1. Identification of the substance/mixture and of the company/undertaking

**Product identifier:**

Loctite 3425B- Kit component

**Relevant identified uses of the substance or mixture and uses advised against:**

Intended use:  
Epoxy Hardener

**Details of the supplier of the safety data sheet:**

Henkel Ireland Limited  
Product Safety & Regulatory Affairs  
Tallaght Business Park, Whitestown  
Dublin 24

Ireland

Phone: +353 (14046444)  
Fax-no.: +353 (14519926)

ua-productsafety.uk@uk.henkel.com

**Emergency telephone number:**

24 Hours Emergency Tel: +44 (0)1442 278497

### 2. Hazards identification

**Classification of the substance or mixture:**

**Classification (DPD):**

Sensitizing  
R43 May cause sensitisation by skin contact.  
Xi - Irritant  
R38 Irritating to skin.  
R41 Risk of serious damage to eyes.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Label elements (DPD):**

Xi - Irritant

**Risk phrases:**

- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

- S24 Avoid contact with skin.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S28 After contact with skin, wash immediately with plenty of water and soap.
- S37/39 Wear suitable gloves and eye/face protection.
- S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

**Additional labeling:**

- For consumer use only: S2 Keep out of the reach of children
- S46 If swallowed, seek medical advice immediately and show this container or label.

**Contains:**

- Triethylenetetramine,
- 2-Piperazin-1-ylethylamine,
- 4,4'-Isopropylidenediphenol

**Other hazards:**

- None if used properly.

**3. Composition/information on ingredients****Declaration of ingredients according to DPD (EC) No 1999/45:**

| Hazardous components<br>CAS-No.   | EC Number<br>REACH-Reg No. | content           | Classification   |
|---|----------------------------|-------------------|--|
| C36 Fatty acid dimer, tall oil fatty acid, triethylenetetramine polymer<br>68082-29-1 |                            | >= 25 - < 50 %    | Xi - Irritant; R38, R41  |
| 2,4,6-Tris(dimethylaminomethyl)phenol<br>90-72-2                                      | 202-013-9                  | >= 0 - < 10 %     | Xn - Harmful; R22<br>Xi - Irritant; R36/38   |
| Triethylenetetramine<br>112-24-3  | 203-950-6                  | >= 1 - < 5 %      | Xn - Harmful; R21<br>C - Corrosive; R34<br>R52, R53<br>R43   |
| 2-Piperazin-1-ylethylamine<br>140-31-8  | 205-411-0                  | >= 1 - < 5 %      | C - Corrosive; R34<br>R43<br>Xn - Harmful; R21/22<br>R52, R53  |
| 4,4'-Isopropylidenediphenol<br>80-05-7  | 201-245-8                  | >= 1 - < 5 %      | Xi - Irritant; R37, R41<br>R52<br>R43<br>Toxic for reproduction - category 3.; R62   |
| Nonylphenol<br>25154-52-3   | 246-672-0                  | >= 0,25 - < 2,5 % | N - Dangerous for the environment; R50, R53<br>Toxic for reproduction - category 3.; R62, R63<br>Xn - Harmful; R22<br>C - Corrosive; R34 |

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.

**Substances without classification may have community workplace exposure limits available.**

#### 4. First aid measures

**Description of first aid measures:**

**Inhalation:**

Move to fresh air. If symptoms persist, seek medical advice.

**Skin contact:**

Rinse with running water and soap.  
Seek medical advice.

**Eye contact:**

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

**Ingestion:**

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.  
Seek medical advice.

**Most important symptoms and effects, both acute and delayed:**

SKIN: Rash, Urticaria.

**Indication of any immediate medical attention and special treatment needed:**

See section: Description of first aid measures

#### 5. Firefighting measures

**Extinguishing media:**

**Suitable extinguishing media:**

Carbon dioxide, foam, powder

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

None known

**Special hazards arising from the substance or mixture:**

None  
Oxides of carbon, oxides of nitrogen, irritating organic vapors.

**Advice for firefighters:**

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

#### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Avoid skin and eye contact.  
See advice in chapter 8

**Environmental precautions:**

Do not let product enter drains.

**Methods and material for containment and cleaning up:**

For small spills wipe up with paper towel and place in container for disposal.  
For large spills absorb onto inert absorbent material and place in sealed container for disposal.  
Wash spillage site thoroughly with soap and water or detergent solution.

#### 7. Handling and storage

**Precautions for safe handling:**

Use only in well-ventilated areas.  
Avoid skin and eye contact.  
Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

## Hygiene measures:

Wash hands before work breaks and after finishing work.  
Do not eat, drink or smoke while working.  
Good industrial hygiene practices should be observed.

**Conditions for safe storage, including any incompatibilities:**

Store in a cool, well-ventilated place.

**Specific end use(s):**

Epoxy Hardener

**8. Exposure controls/personal protection****Control parameters:**

Valid for  
Great Britain

| Ingredient                              | ppm | mg/m <sup>3</sup> | Type                            | Category   | Remarks |
|---|-----|-------------------|---------------------------------|------------|---------|
| BISPHENOL A (INHALABLE DUST)<br>80-05-7 |     | 10                | Time Weighted Average<br>(TWA): | Indicative | ECTLV   |

**Exposure controls:**

## Respiratory protection:

Use only in well-ventilated areas.

## Hand protection:

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR;  $\geq$  0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR;  $\geq$  0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

## Eye protection:

Tightly fitting safety goggles

## Skin protection:

Wear suitable protective clothing.

**9. Physical and chemical properties****Information on basic physical and chemical properties:**

|            |                                    |
|------------|------------------------------------|
| Appearance | paste                              |
| Odor       | light beige<br>of amine            |
| pH         | No data available / Not applicable |

|  |                                    |
|--|------------------------------------|
| Initial boiling point                  | No data available / Not applicable |
| Flash point                            | > 100 °C (> 212 °F)                |
| Decomposition temperature              | No data available / Not applicable |
| Vapour pressure                        | No data available / Not applicable |
| Density                                | 1,45 g/cm <sup>3</sup>             |
| ( )                                    |                                    |
| Bulk density                           | No data available / Not applicable |
| Viscosity                              | No data available / Not applicable |
| Viscosity (kinematic)                  | No data available / Not applicable |
| Explosive properties                   | No data available / Not applicable |
| Solubility (qualitative)               | Insoluble                          |
| (Solvent: Water)                       |                                    |
| Solidification temperature             | No data available / Not applicable |
| Melting point                          | No data available / Not applicable |
| Flammability                           | No data available / Not applicable |
| Auto-ignition temperature              | No data available / Not applicable |
| Explosive limits                       | No data available / Not applicable |
| Partition coefficient: n-octanol/water | No data available / Not applicable |
| Evaporation rate                       | No data available / Not applicable |
| Vapor density                          | No data available / Not applicable |
| Oxidising properties                   | No data available / Not applicable |

**Other information:**

No data available / Not applicable

## 10. Stability and reactivity

**Reactivity:**

Reaction with strong acids.  
Reacts with strong oxidants.

**Chemical stability:**

Stable under recommended storage conditions.

**Possibility of hazardous reactions:**

See section reactivity

**Conditions to avoid:**

Stable under normal conditions of storage and use.

**Incompatible materials:**

No data available.

**Hazardous decomposition products:**

carbon oxides.

## 11. Toxicological information

**General toxicological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**Oral toxicity:**

May cause irritation to the digestive tract.

**Inhalative toxicity:**

May cause irritation to respiratory system.

**Skin irritation:**

Irritating to the skin.

**Eye irritation:**

Risk of serious damage to eyes

**Sensitizing:**

May cause sensitization by skin contact.

**Acute toxicity:**

| Hazardous components CAS-No.                  | Value type | Value                              | Route of application | Exposure time | Species       | Method   |
|---|------------|------------------------------------|----------------------|---------------|---------------|--|
| 2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2 | LD50       | 1.378 - 1.968 mg/kg<br>1.280 mg/kg | oral<br>dermal       |               | rat<br>rat    | OECD Guideline 401 (Acute Oral Toxicity)<br>OECD Guideline 402 (Acute Dermal Toxicity) |
| 4,4'-Isopropylidenediphenol 80-05-7           | LD50       | 5.000 mg/kg<br>3.600 mg/kg         | oral<br>dermal       |               | rat<br>rabbit | OECD Guideline 401 (Acute Oral Toxicity)   |
| Nonylphenol 25154-52-3                        | LD50       | 1.900 mg/kg<br>> 2.000 mg/kg       | oral<br>dermal       |               | rat<br>rabbit | OECD Guideline 401 (Acute Oral Toxicity)   |

**Skin corrosion/irritation:**

| Hazardous components CAS-No.                  | Result    | Exposure time | Species | Method   |
|---|-----------|---------------|---------|--|
| 2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2 | corrosive |               | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| Nonylphenol 25154-52-3                        | corrosive |               | rabbit  | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

**Serious eye damage/irritation:**

| Hazardous components CAS-No.                  | Result         | Exposure time | Species | Method  |
|---|----------------|---------------|---------|---|
| 2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2 | not irritating | 24 h          | rabbit  |   |
| Nonylphenol 25154-52-3                        | not irritating |               | rabbit  | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

**Respiratory or skin sensitization:**

| Hazardous components CAS-No.                  | Result          | Test type                    | Species    | Method                                  |
|---|-----------------|------------------------------|------------|---|
| 2,4,6-Tris(dimethylaminomethyl)phenol 90-72-2 | not sensitising | Buehler test                 | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Nonylphenol 25154-52-3                        | not sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Nonylphenol 25154-52-3                        | not sensitising | Buehler test                 | guinea pig | OECD Guideline 406 (Skin Sensitisation) |

**Germ cell mutagenicity:**

| Hazardous components CAS-No.        | Result   | Type of study / Route of administration          | Metabolic activation / Exposure time | Species | Method |
|-------------------------------------|----------|--|--------------------------------------|---------|--------|
| Triethylenetetramine 112-24-3       | positive | bacterial reverse mutation assay (e.g Ames test) | with and without                     |         |        |
| 4,4'-Isopropylidenediphenol 80-05-7 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without                     |         |        |
| Nonylphenol 25154-52-3              | negative | bacterial reverse mutation assay (e.g Ames test) | with and without                     |         |        |

**Repeated dose toxicity**

| Hazardous components<br>CAS-No. | Result             | Route of<br>application | Exposure time /<br>Frequency of<br>treatment | Species | Method   |
|---------------------------------|--------------------|-------------------------|--|---------|--|
| Nonylphenol<br>25154-52-3       | NOAEL=100<br>mg/kg | oral: feed              | 28 days daily                                | rat     | OECD Guideline 407<br>(Repeated Dose 28-Day Oral<br>Toxicity in Rodents) |

**12. Ecological information****General ecological information:**

Do not empty into drains / surface water / ground water.

May cause long-term adverse effects in the aquatic environment.

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Harmful to aquatic organisms.

**Mobility:**

Cured adhesives are immobile.

**Toxicity:**

| Hazardous components CAS-No.                     | Value type | Value      | Acute Toxicity Study | Exposure time | Species  | Method   |
|--|------------|------------|----------------------|---------------|--|--|
| 2,4,6-Tris(dimethylaminomethyl)phenol<br>90-72-2 | LC50       | 153 mg/l   | Fish                 | 96 h          | Brachydanio rerio (new name: Danio rerio)                            |  |
| Triethylenetetramine<br>112-24-3                 | LC50       | 570 mg/l   | Fish                 | 96 h          | Poecilia reticulata  | OECD Guideline 203 (Fish, Acute Toxicity Test)             |
| Triethylenetetramine<br>112-24-3                 | EC50       | 31 mg/l    | Daphnia              | 48 h          | Daphnia magna  | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Triethylenetetramine<br>112-24-3                 | EC50       | 20 mg/l    | Algae                | 72 h          | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test)          |
| 2-Piperazin-1-ylethylamine<br>140-31-8           | LC50       | > 100 mg/l | Fish                 | 96 h          | Salmo gairdneri (new name: Oncorhynchus mykiss)                      | OECD Guideline 203 (Fish, Acute Toxicity Test)             |
| 2-Piperazin-1-ylethylamine<br>140-31-8           | EC50       | 32 mg/l    | Daphnia              | 48 h          | Daphnia magna  | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 2-Piperazin-1-ylethylamine<br>140-31-8           | EC50       | 495 mg/l   | Algae                | 72 h          | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test)          |
| 4,4'-Isopropylidenediphenol<br>80-05-7           | LC50       | 9,9 mg/l   | Fish                 | 96 h          | Brachydanio rerio (new name: Danio rerio)                            | OECD Guideline 203 (Fish, Acute Toxicity Test)             |
| 4,4'-Isopropylidenediphenol<br>80-05-7           | EC50       | 3,9 mg/l   | Daphnia              | 48 h          | Daphnia magna  | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| 4,4'-Isopropylidenediphenol<br>80-05-7           | EC50       | 2,5 mg/l   | Algae                | 96 h          | Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test)          |
| Nonylphenol<br>25154-52-3                        | LC50       | 0,23 mg/l  | Fish                 | 96 h          |  | OECD Guideline 203 (Fish, Acute Toxicity Test)             |
| Nonylphenol<br>25154-52-3                        | EC50       | 0,14 mg/l  | Daphnia              | 48 h          | Daphnia magna  | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Nonylphenol<br>25154-52-3                        | EC50       | 1,3 mg/l   | Algae                | 72 h          | Scenedesmus subspicatus (new name: Desmodesmus subspicatus)          | OECD Guideline 201 (Alga, Growth Inhibition Test)          |

**Persistence and degradability:**

| Hazardous components CAS-No.           | Result   | Route of application | Degradability | Method   |
|--|--|----------------------|---------------|--|
| 2-Piperazin-1-ylethylamine<br>140-31-8 | under test conditions no biodegradation observed | aerobic              | 0 %           | OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)                  |
| 4,4'-Isopropylidenediphenol<br>80-05-7 | readily biodegradable                            | aerobic              | 67 - 70 %     | EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test) |
| Nonylphenol<br>25154-52-3              |  | aerobic              | 0 %           |  |

**Bioaccumulative potential / Mobility in soil:**

| Hazardous components CAS-No. | LogKow | Bioconcentration factor (BCF) | Exposure time | Species | Temperature | Method |
|------------------------------|--------|-------------------------------|---------------|---------|-------------|--------|
|------------------------------|--------|-------------------------------|---------------|---------|-------------|--------|



|  |       |            |      |                 |         |   |
|--|-------|------------|------|-----------------|---------|---|
| 2,4,6-Tris(dimethylaminomethyl)phenol<br>90-72-2 | 0,77  |            |      |                 |         |   |
| Triethylenetetramine<br>112-24-3                 | -2,65 |            |      |                 |         |   |
| 2-Piperazin-1-ylethylamine<br>140-31-8           | -1,48 |            |      |                 |         | OECD Guideline 107<br>(Partition Coefficient (n-octanol / water), Shake Flask Method) |
| 4,4'-Isopropylidenediphenol<br>80-05-7           |       | 5,1 - 13,8 | 42 d | Cyprinus carpio | 25 °C   |   |
| 4,4'-Isopropylidenediphenol<br>80-05-7           | 3,4   |            |      |                 | 21,5 °C | OECD Guideline 107<br>(Partition Coefficient (n-octanol / water), Shake Flask Method) |

### 13. Disposal considerations

**Waste treatment methods:****Product disposal:**

Dispose of in accordance with local and national regulations.

**Disposal of uncleaned packages:**

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

**Waste code**

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

### 14. Transport information

**General information:**

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

### 15. Regulatory information

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

VOC content (2004/42/EC) < 3,00 % Combined A/B

## 16. Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- R21 Harmful in contact with skin.
- R21/22 Harmful in contact with skin and if swallowed.
- R22 Harmful if swallowed.
- R34 Causes burns.
- R36/38 Irritating to eyes and skin.
- R37 Irritating to respiratory system.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R50 Very toxic to aquatic organisms.
- R52 Harmful to aquatic organisms.
- R53 May cause long-term adverse effects in the aquatic environment.
- R62 Possible risk of impaired fertility.
- R63 Possible risk of harm to the unborn child.

### **Further information:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and its subsequent amendments, and Commission Directive 1999/45/EC.