



## Safety Data Sheet S51 RED OXIDE

Safety Data Sheet dated 29/11/1997 version 6.1 dated 5/11/2015

This safety data sheet has been completely updated in compliance to Regulation 2015/830/EU.

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

#### 1.1. Product identifier

Mixture identification:

Trade name: INDURA - UNIVERSAL RED OXIDE COLOURANT

Trade code: S51

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

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

Seller: Capella Solutions Group. Second Avenue, Chatham, Kent ME4 5AU

Tel. +44 (0)1634 823907 - Fax +44 (0)1634 823909

Competent person responsible for the safety data sheet: salescapellasolutionsgroup.com

#### 1.4. Emergency telephone number Tel: +44(0) 1634 823900 (08.00 / 17.00)

UK: NPIS National Poisons Information Centre Tel: +44 0344 892 0111

IRL: Beaumont Hospital - National Poisons Information Centre: Tel: +353 1 8092566

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

⚠ Warning, Flam. Liq. 3, Flammable liquid and vapour.

⚠ Warning, Skin Irrit. 2, Causes skin irritation.

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

Symbols:



Warning

Hazard statements:

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P280 Wear protective gloves/clothing and eye/face protection.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire, use a foam fire extinguisher to extinguish.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Contents:

2-butanone oxime; ethyl methyl ketoxime: May produce an allergic reaction.

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Condensation products of dimerised fatty acids, C18-unsaturated, with  
N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine: May produce an allergic reaction.  
Special provisions according to Annex XVII of REACH and subsequent amendments:  
None  
2.3. Other hazards  
vPvB Substances: None - PBT Substances: None  
Other Hazards:  
No other hazards

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

N.A.

#### 3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

>= 7% - < 10% Xylene [Reaction mass of ethylbenzene and m-xylene and p-xylene] (Benzene < 0,01%)

REACH No.: 01-2119555267-33, EC: 905-562-9

- ⚠ 2.6/3 Flam. Liq. 3 H226
- ⚠ 3.10/1 Asp. Tox. 1 H304
- ⚠ 3.3/2 Eye Irrit. 2 H319
- ⚠ 3.8/3 STOT SE 3 H335
- ⚠ 3.9/2 STOT RE 2 H373
- ⚠ 3.2/2 Skin Irrit. 2 H315
- ⚠ 3.1/4/Dermal Acute Tox. 4 H312
- ⚠ 3.1/4/Inhal Acute Tox. 4 H332

>= 5% - < 7% xylene

REACH No.: 01-2119488216-32, Index number: 601-022-00-9, CAS: 1330-20-7, EC: 215-535-7

- ⚠ 2.6/3 Flam. Liq. 3 H226
- ⚠ 3.10/1 Asp. Tox. 1 H304
- ⚠ 3.3/2 Eye Irrit. 2 H319
- ⚠ 3.8/3 STOT SE 3 H335
- ⚠ 3.9/2 STOT RE 2 H373
- ⚠ 3.2/2 Skin Irrit. 2 H315
- ⚠ 3.1/4/Dermal Acute Tox. 4 H312
- ⚠ 3.1/4/Inhal Acute Tox. 4 H332

>= 3% - < 5% 2-methoxy-1-methylethyl acetate

REACH No.: 01-2119475791-29, Index number: 607-195-00-7, CAS: 108-65-6, EC: 203-603-9

- ⚠ 2.6/3 Flam. Liq. 3 H226

>= 0.5% - < 1% 2-butanone oxime; ethyl methyl ketoxime

REACH No.: 01-2119539477-28, Index number: 616-014-00-0, CAS: 96-29-7, EC: 202-496-6

- ⚠ 3.6/2 Carc. 2 H351
- ⚠ 3.3/1 Eye Dam. 1 H318
- ⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317
- ⚠ 3.1/4/Dermal Acute Tox. 4 H312

>= 0.25% - < 0.5% Condensation products of dimerised fatty acids, C18-unsaturated, with  
N,N-dimethyl-1,3-propanediamine and 1,3-propanediamine

REACH No.: 01-2119970640-38, CAS: 162627-17-0

- ⚠ 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317

>= 0.1% - < 0.25% 1-methoxy-2-propanol; monopropylene glycol methyl ether

REACH No.: 01-2119457435-35, Index number: 603-064-00-3, CAS: 107-98-2, EC: 203-539-1

- ⚠ 2.6/3 Flam. Liq. 3 H226
- ⚠ 3.8/3 STOT SE 3 H336

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300 ppm phosphoric acid 75%, orthophosphoric acid 75%

REACH No.: 01-2119485924-24, Index number: 015-011-00-6, CAS: 7664-38-2, EC: 231-633-2

⚠ 3.2/1B Skin Corr. 1B H314

136 ppm ethylbenzene

REACH No.: 01-2119489370-35, Index number: 601-023-00-4, CAS: 100-41-4, EC: 202-849-4

⚠ 2.6/2 Flam. Liq. 2 H225

⚠ 3.1/4/Inhal Acute Tox. 4 H332

⚠ 3.9/2 STOT RE 2 H373

⚠ 3.10/1 Asp. Tox. 1 H304

The full text of H-phrases is shown in section 16.

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

Extinguishing media which must not be used for safety reasons:

None in particular.

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

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

#### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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### SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
  - Wear personal protection equipment.
  - Remove all sources of ignition.
  - Remove persons to safety.
  - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
  - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
  - Retain contaminated washing water and dispose it.
  - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
  - Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
  - Wash with plenty of water.
- 6.4. Reference to other sections
  - See also section 8 and 13

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### SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
  - Avoid contact with skin and eyes, inhalation of vapours and mists.
  - Don't use empty container before they have been cleaned.
  - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
  - Contaminated clothing should be changed before entering eating areas.
  - Do not eat or drink while working.
  - See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
  - Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
  - Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
  - Keep away from food, drink and feed.
  - Incompatible materials:
    - None in particular.
  - Instructions as regards storage premises:
    - Cool and adequately ventilated.
- 7.3. Specific end use(s)
  - None in particular

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### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
  - Xylene [Reaction mass of ethylbenzene and m-xylene and p-xylene] (Benzene < 0,01%)
    - EU - LTE(8h): 221 mg/m<sup>3</sup>, 50 ppm - STE: 442 mg/m<sup>3</sup>, 100 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
    - ACGIH - LTE(8h): 100 ppm - STE: 150 ppm - Notes: A4, BEI - URT and eye irr, CNS impair
  - xylene - CAS: 1330-20-7
    - EU - LTE(8h): 221 mg/m<sup>3</sup>, 50 ppm - STE: 442 mg/m<sup>3</sup>, 100 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
    - ACGIH - LTE(8h): 100 ppm - STE: 150 ppm - Notes: A4, BEI - URT and eye irr, CNS impair
  - 2-methoxy-1-methylethyl acetate - CAS: 108-65-6
    - EU - LTE(8h): 275 mg/m<sup>3</sup>, 50 ppm - STE: 550 mg/m<sup>3</sup>, 100 ppm - Notes: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

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1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2  
EU - LTE(8h): 375 mg/m<sup>3</sup>, 100 ppm - STE: 568 mg/m<sup>3</sup>, 150 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)  
ACGIH - LTE(8h): 184 mg/m<sup>3</sup>, 50 ppm - STE: 100 ppm - Notes: A4 - Eye and URT irr  
phosphoric acid 75%, orthophosphoric acid 75% - CAS: 7664-38-2  
EU - LTE(8h): 1 mg/m<sup>3</sup> - STE: 2 mg/m<sup>3</sup> - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)  
ACGIH - LTE(8h): 1 mg/m<sup>3</sup> - STE: 3 mg/m<sup>3</sup> - Notes: URT, eye and skin irr  
ethylbenzene - CAS: 100-41-4  
EU - LTE(8h): 442 mg/m<sup>3</sup>, 100 ppm - STE: 884 mg/m<sup>3</sup>, 200 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)  
ACGIH - LTE(8h): 20 ppm - Notes: A3, BEI - URT irr, kidney dam (nephropathy), cochlear impair

#### DNEL Exposure Limit Values

Xylene [Reaction mass of ethylbenzene and m-xylene and p-xylene] (Benzene < 0,01%)  
Consumer: 260 ppm - Exposure: Human Inhalation - Frequency: Short Term (acute)  
Consumer: 65.3 ppm - Exposure: Human Inhalation - Frequency: Long Term (repeated)  
xylene - CAS: 1330-20-7  
Worker Industry: 289 ppm - Consumer: 260 ppm - Exposure: Human Inhalation - Frequency: Short Term (acute)  
Worker Industry: 77 ppm - Consumer: 65.3 ppm - Exposure: Human Inhalation - Frequency: Long Term, systemic effects  
Worker Industry: 180 mg/kg/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects

2-methoxy-1-methylethyl acetate - CAS: 108-65-6  
Consumer: 1.67 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects  
Worker Professional: 275 ppm - Consumer: 33 ppm - Exposure: Human Inhalation - Frequency: Long Term, systemic effects  
Worker Professional: 153.5 mg/kg - Consumer: 54.8 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

2-butanone oxime; ethyl methyl ketoxime - CAS: 96-29-7  
Worker Professional: 2.5 mg/kg - Consumer: 1.5 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects  
Worker Professional: 1.3 mg/kg - Consumer: 0.78 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects  
Worker Professional: 9 ppm - Consumer: 2.7 ppm - Exposure: Human Inhalation - Frequency: Long Term, systemic effects  
Worker Professional: 3.33 ppm - Consumer: 2 ppm - Exposure: Human Inhalation - Frequency: Long Term, local effects

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2  
Consumer: 33 mg/kg/d - Exposure: Human Oral - Frequency: Long Term, systemic effects  
Worker Industry: 369 mg/m<sup>3</sup> - Worker Professional: 369 mg/m<sup>3</sup> - Consumer: 43.9 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects  
Worker Industry: 183 mg/kg/d - Worker Professional: 183 mg/kg/d - Consumer: 78 mg/kg/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects  
Worker Industry: 553.5 mg/m<sup>3</sup> - Worker Professional: 553.5 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, local effects

#### PNEC Exposure Limit Values

Xylene [Reaction mass of ethylbenzene and m-xylene and p-xylene] (Benzene < 0,01%)  
Target: Fresh Water - Value: 0.327 mg/l  
Target: Marine water - Value: 0.327 mg/l  
Target: Freshwater sediments - Value: 12.46 mg/kg  
Target: Marine water - Value: 12.46 mg/kg

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Target: Soil (agricultural) - Value: 2.31 mg/kg  
 xylene - CAS: 1330-20-7  
 Target: Fresh Water - Value: 0.327 mg/l  
 Target: Marine water - Value: 0.327 mg/l  
 Target: Freshwater sediments - Value: 12.46 mg/kg  
 Target: Marine water - Value: 12.46 mg/kg  
 Target: Soil (agricultural) - Value: 2.31 mg/kg  
 2-methoxy-1-methylethyl acetate - CAS: 108-65-6  
 Target: Fresh Water - Value: 0.635 mg/l  
 Target: Freshwater sediments - Value: 3.29 mg/kg  
 Target: Marine water sediments - Value: 0.329 mg/kg  
 Target: Microorganisms in sewage treatments - Value: 100 mg/l  
 2-butanone oxime; ethyl methyl ketoxime - CAS: 96-29-7  
 Target: Fresh Water - Value: 0.256 mg/l  
 Target: Microorganisms in sewage treatments - Value: 177 mg/l  
 1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2  
 Target: Fresh Water - Value: 10 mg/l  
 Target: Freshwater sediments - Value: 52.3 mg/kg  
 Target: Marine water sediments - Value: 5.2 mg/kg  
 Target: Microorganisms in sewage treatments - Value: 100 mg/l  
 Target: Soil (agricultural) - Value: 4.59 mg/kg

### 8.2. Exposure controls

#### Eye protection:

Use close fitting safety goggles, don't use eye lens.

#### Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

#### Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

#### Respiratory protection:

Not needed for normal use.

#### Thermal Hazards:

None

#### Environmental exposure controls:

None

#### Appropriate engineering controls:

None

## SECTION 9: Physical and chemical properties

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

Properties	Value	Method:	Notes:
Appearance and colour:	liquid oxide red	--	--
Odour:	Characteristic	--	--
Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	137°C	--	--

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Flash point:	25 °C	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	> 1	--	--
Relative density:	2.050 g/cm <sup>3</sup> - 20°C	--	--
Solubility in water:	insoluble	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	> 450°C	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	UEL 6% vol. - LEL 1% vol. (Xilene)	--	--
Oxidizing properties:	N.A.	--	--

#### 9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions

### 10.2. Chemical stability

Stable under normal conditions

### 10.3. Possibility of hazardous reactions

None

### 10.4. Conditions to avoid

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Stable under normal conditions.

### 10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

### 10.6. Hazardous decomposition products

None.

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Toxicological information of the mixture:

N.A.

Toxicological information of the main substances found in the mixture:

xylene - CAS: 1330-20-7

#### a) acute toxicity:

Test: LC50 - Route: Inhalation Vapour - Species: Rat = 27.124 mg/l - Duration: 4h

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

#### a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 8530 mg/kg

2-butanone oxime; ethyl methyl ketoxime - CAS: 96-29-7

#### a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 2400 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 1000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 20 mg/l - Duration: 4h

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

#### a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 4016 mg/kg

Test: LD50 - Route: Skin - Species: Rat = 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat = 54.6 mg/l - Duration: 4h

#### b) skin corrosion/irritation:

Test: Skin Irritant - Species: Rat Negative

#### d) respiratory or skin sensitisation:

Test: Inhalation Sensitization No

phosphoric acid 75%, orthophosphoric acid 75% - CAS: 7664-38-2

#### a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 2600 mg/kg

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

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## SECTION 12: Ecological information

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

#### a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96

2-butanone oxime; ethyl methyl ketoxime - CAS: 96-29-7

#### a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 201 mg/l - Duration h: 48



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- Endpoint: EC50 - Species: Algae = 11.8 mg/l - Duration h: 72  
Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96  
Endpoint: NOEC - Species: Algae = 2.56 mg/l - Duration h: 72  
1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2  
a) Aquatic acute toxicity:  
Endpoint: LC50 - Species: Fish > 100 mg/l  
Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 168  
Endpoint: EC50 - Species: Daphnia > 21100 mg/l - Duration h: 48 - Notes: 21100 - 25900 mg/l  
Endpoint: EC50 - Species: Fish = 20800 mg/l - Duration h: 96
- 12.2. Persistence and degradability  
None  
2-methoxy-1-methylethyl acetate - CAS: 108-65-6  
Biodegradability: Readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes: N.A.
- 12.3. Bioaccumulative potential  
2-methoxy-1-methylethyl acetate - CAS: 108-65-6  
Bioaccumulation: Not bioaccumulative - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.
- 12.4. Mobility in soil  
N.A.
- 12.5. Results of PBT and vPvB assessment  
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects  
None

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### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

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### SECTION 14: Transport information



- 14.1. UN number  
ADR-UN Number: 1263  
IATA-UN Number: 1263  
IMDG-UN Number: 1263
- 14.2. UN proper shipping name  
ADR-Shipping Name: PAINT  
IATA-Shipping Name: PAINT  
IMDG-Shipping Name: PAINT
- 14.3. Transport hazard class(es)  
ADR-Class: 3  
  
ADR - Hazard identification number: 30  
IATA-Class: 3  
IATA-Label: 3  
IMDG-Class: 3  
Sea (IMO): Classe 3, P.G. III - EmS F-E, S-E
- 14.4. Packing group  
ADR-Packing Group: III  
IATA-Packing group: III  
IMDG-Packing group: III

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- 14.5. Environmental hazards  
ADR-Environmental Pollutant: No  
IMDG-Marine pollutant: No
- 14.6. Special precautions for user
- |                              |              |
|------------------------------|--------------|
| ADR-Subsidiary risks:        | -            |
| ADR-S.P.:                    | 163 640E 650 |
| ADR-Tunnel Restriction Code: | (D/E)        |
| IATA-Passenger Aircraft:     | 355          |
| IATA-Subsidiary risks:       | -            |
| IATA-Cargo Aircraft:         | 366          |
| IATA-S.P.:                   | A3 A72       |
| IATA-ERG:                    | 3L           |
| IMDG-EmS:                    | F-E , S-E    |
| IMDG-Subsidiary risks:       | -            |
| IMDG-Storage category:       | Category A   |
| IMDG-Storage notes:          | -            |
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code  
No

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### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)  
Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:  
Restrictions related to the product:  
Restriction 3  
Restriction 40  
Restrictions related to the substances contained:  
Restriction 30  
Volatile Organic compounds - VOCs = 18.61 %  
Volatile Organic compounds - VOCs = 380.79 g/l  
Volatile CMR substances = 0.00 %  
Halogenated VOCs which are assigned the risk phrase R40 = 0.90 %  
Organic Carbon - C = 0.15  
Where applicable, refer to the following regulatory provisions :  
Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.  
Regulation (EC) nr 648/2004 (detergents).  
1999/13/EC (VOC directive)
- Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):  
N.A.
- 15.2. Chemical safety assessment  
No

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### SECTION 16: Other information

Text of phrases referred to under heading 3:

- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H315 Causes skin irritation.
- H312 Harmful in contact with skin.
- H332 Harmful if inhaled.
- H351 Suspected of causing cancer.
- H318 Causes serious eye damage.
- H317 May cause an allergic skin reaction.
- H336 May cause drowsiness or dizziness.
- H314 Causes severe skin burns and eye damage.
- H225 Highly flammable liquid and vapour.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold
- CCNL - Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.

## **Safety Data Sheet**

### **S51 RED OXIDE**

STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.
N.A.:	N.A.
N.D.:	