according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2015/830

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

1.1. Product identifier

Article No. (manufacturer/supplier) 631-B2335-00

Trade name/designation OSTRODUR-Road-Marking-Paint

yellow flat

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

Relevant identified uses:

Coating material

1.3.

supplier (manufacturer/importer/downstream user/distributor)

Moravia GmbH

Rostocker Straße 10 Telephone: +49 (0)611/ 95020 65191 Wiesbaden Telefax: +49 (0)611/ 9502200 E-mail_service@moravia.de

Dept. responsible for information:

E-mail

service@moravia.de +49 (0)611/ 95020

Emergency telephone number Only available during office hours.

1.4.

SECTION 2: Hazards identification

. 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].

Flam. Liq. 2 / H225 Flammable liquids Highly flammable liquid and vapour. Eye Irrit. 2 / H319 Serious eye damage/eye irritation Causes serious eye irritation. STOT SE 3 / H336 STOT-single exposure May cause drowsiness or dizziness.

2.2. Label elements

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

Hazard pictograms





Danger

Hazard statements

H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

Precautionary statements

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

P370 + P378 In case of fire: Use extinguishing powder or sand to extinguish.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

Hazard components for labelling

Ethyl acetate

Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description Preparation of synthetic binders, pigments and solvents

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2015/830

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

EC No. CAS No. INDEX No.	REACH No. Designation classification // Remark	Wt %
205-500-4 141-78-6 607-022-00-5	01-2119475103-46-xxxx Ethyl acetate Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	12,5 - 20
200-662-2 67-64-1 606-001-00-8	01-2119471330-49-xxxx Acetone Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	5 - 10
204-658-1 123-86-4 607-025-00-1	01-2119485493-29-xxxx n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	5 - 10

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

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. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

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

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2015/830

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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.

Further information

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

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 5 °C and 35 °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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

Ethyl acetate

INDEX No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

WEL, TWA: 730 mg/m3; 200 ppm WEL, STEL: 1460 mg/m3; 400 ppm

Acetone

INDEX No. 606-001-00-8 / EC No. 200-662-2 / CAS No. 67-64-1

WEL, TWA: 1210 mg/m3; 500 ppm WEL, STEL: 3620 mg/m3; 1500 ppm

n-butyl acetate

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

MEL/OES, TWA: 724 mg/m3; 150 ppm MEL/OES, STEL: 966 mg/m3; 200 ppm

Additional information

TWA: long-term occupational exposure limit value STEL: short-term occupational exposure limit value

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Ceiling: peak limitation

DNEL:

Acetone

INDEX No. 606-001-00-8 / EC No. 200-662-2 / CAS No. 67-64-1 DNEL long-term dermal (systemic), Workers: 186 mg/kg DNEL acute inhalative (local), Workers: 2420 mg/m³

DNEL long-term inhalative (systemic), Workers: 1210 mg/m³

n-butyl acetate

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

DNEL acute inhalative (local), Workers: 960 mg/m³ DNEL acute inhalative (systemic), Workers: 960 mg/m³ DNEL long-term inhalative (local), Workers: 480 mg/m³ DNEL long-term inhalative (systemic), Workers: 480 mg/m³

PNEC:

Acetone

INDEX No. 606-001-00-8 / EC No. 200-662-2 / CAS No. 67-64-1

PNEC aquatic, freshwater: 10,6 mg/l PNEC aquatic, marine water: 1,06 mg/l PNEC aquatic, intermittent release: 21 mg/l PNEC sediment, freshwater: 30,4 mg/kg

PNEC, soil: 29,5 mg/kg

n-butyl acetate

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

PNEC aquatic, freshwater: 0,18 mg/l PNEC aquatic, marine water: 0,018 mg/l PNEC aquatic, intermittent release: 0,36 mg/l PNEC sediment, freshwater: 0,981 mg/kg PNEC sediment, marine water: 0,0981 mg/kg

PNEC, soil: 0,0903 mg/kg

PNEC sewage treatment plant (STP): 35,6 mg/l

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.

Personal protection equipment

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.

Hand protection

For prolonged or repeated handling the following glove material must be used: Butyl caoutchouc (butyl rubber) / Butyl caoutchouc (butyl rubber)

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 EN ISO 374 Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

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

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2015/830

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state: Liquid Appearance: Liquid

Colour: Trade name/designation

Odour: characteristic
Odour threshold: not applicable

pH at 20 °C: neutral Melting point/freezing point: -

Initial boiling point and boiling range: 56 °C

Source: Acetone

Flash point: -18 °C

Method: DIN 53213 **Evaporation rate:** not applicable

flammability

Burning time (s): not applicable

Upper/lower flammability or explosive limits:

Lower explosion limit: 2,16 Vol-% Upper explosion limit: 13 Vol-%

Source: Acetone

Vapour pressure at 20 °C: 52,9 mbar

Method: calculated.

Vapour density: not applicable

Relative density:

Density at 20 °C: 1,26 g/cm³

Method: DIN 53217 not applicable

Relative density at 20 °C::

Solubility(ies):

Water solubility (g/L) at 20 °C: partially soluble Partition coefficient: n-octanol/water: see section 12

Auto-ignition temperature: 420 °C

Source: n-butyl acetate

Decomposition temperature: not applicable Viscosity at 20 °C: 20 s 6 mm

Method: DIN 53211

Explosive properties: not applicable
Oxidising properties: not applicable

9.2. Other information

Solid content (%): 69 Wt % / 53 Vol-%

Remark: Solid content (%)Remark

Solvent:

Organic solvents: 31,0 Wt % aromatic hydrocarbons: 0,5 Wt % Water: 0,0 Wt %

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

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

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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

not applicable

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, calculated:

Acute toxicity

Acetone

oral, LD50, Rat: 5800 mg/kg dermal, LD50, Rat: > 7400 mg/kg

inhalative (vapours), LC50, Rat: 76 mg/l (4 h)

n-butyl acetate

oral, LD50, Rat: 10760 mg/kg dermal, LD50, Rabbit: > 14000 mg/kg

inhalative (vapours), LC50, Rat: > 21 mg/l (4 h)

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Based on available data, the classification criteria are not met.

STOT-single exposure; STOT-repeated exposure

May cause drowsiness or dizziness.

Aspiration hazard

Based on available data, the classification criteria are not met.

Practical experience/human evidence

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. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers. See chapters 2 and 15 for details.

SECTION 12: Ecological information

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.

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2015/830

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12.1. Toxicity

Acetone

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 5540 mg/l (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia pulex (water flea): 8800 mg/l (48 h)

n-butyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 18 mg/l (96 h) Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/l (48 h)

Long-term Ecotoxicity

Acetone

Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 2212 mg/l (28 D)

Method: OECD 211

n-butyl acetate

Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 23 mg/l (21 D)

12.2. Persistence and degradability

Acetone

Degree of elimination:: 90 % (28 D)

12.3. Bioaccumulative potential

Acetone

Partition coefficient: n-octanol/water: -0,24

Bioconcentration factor (BCF)

Acetone

Bioconcentration factor (BCF): 3

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

No information available.

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

080111* Waste paint and varnish containing organic solvents or other dangerous substances

*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package

Recommendation

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

SECTION 14: Transport information

14.1. UN number

UN 1263

14.2. UN proper shipping name

Land transport (ADR/RID): Paint
Sea transport (IMDG): PAINT
Air transport (ICAO-TI / IATA-DGR): Paint

14.3. Transport hazard class(es)

3

14.4. Packing group

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2015/830

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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/E

Sea transport (IMDG)

EmS-No. F-E, S-E

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

Directive 2010/75/EU on industrial emissions

VOC-value (in g/L): 390

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

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Full text of classification in section 3:

Flam. Liq. 2 / H225 Flammable liquids Highly flammable liquid and vapour. Eye Irrit. 2 / H319 Serious eye damage/eye irritation Causes serious eye irritation. STOT SE 3 / H336 STOT-single exposure May cause drowsiness or dizziness. Flam. Liq. 3 / H226 Flammable liquids Flammable liquid and vapour.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 2 Flammable liquids On basis of test data.

Eye Irrit. 2 Serious eye damage/eye irritation Calculation method.

STOT SE 3 STOT-single exposure Calculation method.

Abbreviations and acronyms

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

OEL Occupational Exposure Limit Value

BLV Biological Limit Value
CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging CMR Carcinogenic, Mutagenic and Reprotoxic

DIN German Institute for Standardization / German industrial standard

DNEL Derived No-Effect Level

EAKV European Waste Catalogue Directive

EC Effective Concentration
EC European Community
EN European Standard

IATA-DGR International Air Transport Association – Dangerous Goods Regulations

IBC Code International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in

Bulk

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2015/830

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ICAO-TI International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous

Goods by Air

IMDG Code International Maritime Code for Dangerous Goods
ISO International Organization for Standardization

LC Lethal Concentration

LD Lethal Dose

MARPOL Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

OECD Organisation for Economic Cooperation and Development

PBT persistent, bioaccumulative, toxic PNEC Predicted No Effect Concentration

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

IMDG Code International Maritime Code for Dangerous Goods ISO International Organization for Standardization

VOC Volatile Organic Compounds

vPvB very persistent and very bioaccumulative

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.