SAFETY DATA SHEET

DOW CHEMICAL IBERICA S.L.

Safety Data Sheet according to Reg. (EU) No 2015/830

Product name: DOWSIL™ 3522 Cleaning Solvent Concentrated

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DOW CHEMICAL IBERICA S.L. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product name: DOWSIL™ 3522 Cleaning Solvent Concentrated
UFI: KPY9-702E-A00S-PD09

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

1.3 Details of the supplier of the safety data sheet
COMPANY IDENTIFICATION
DOW CHEMICAL IBERICA S.L.
CALLE JOSE ABASCAL 56
28003 MADRID
SPAIN

Customer Information Number: (091) 740 77 00
SDSQuestion@dow.com

1.4 EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: 0034 9775 43620
Local Emergency Contact: 00 34 977 54 36 20
National Institute of Toxicology: + 34 91 562 04 20

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:
Corrosive to metals - Category 1 - H290
Skin corrosion - Sub-category 1C - H314
Serious eye damage - Category 1 - H318
Aspiration hazard - Category 1 - H304
Long-term (chronic) aquatic hazard - Category 3 - H412
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

Hazard pictograms

Signal word: DANGER

Hazard statements

H290	May be corrosive to metals.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Supplemental information

EUH071	Corrosive to the respiratory tract.

Contains	Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

2.3 Other hazards

This product contains no substances assessed to be PBT or vPvB at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Organic acids

3.2 Mixtures

This product is a mixture.

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN Not available **EC-No.** 934-954-2 **Index-No.** –	01-2119826592-36	>= 70,0 - <= 80,0 %	Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics	Asp. Tox. - 1 - H304
CASRN 85536-14-7 **EC-No.** 287-494-3 **Index-No.** –	01-2119490234-40	>= 20,0 - <= 30,0 %	Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.	Acute Tox. - 4 - H302 Skin Corr. - 1C - H314 Eye Dam. - 1 - H318 Aquatic Chronic - 3 - H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures
General advice:
First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse. Suitable emergency safety shower facility should be immediately available.

Eye contact: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth unless the person is fully conscious.

4.2 Most important symptoms and effects, both acute and delayed:
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. Due to irritant properties, swallowing may result in burns and/or ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal or esophageal control if lavage is done. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Repeated excessive exposure may aggravate preexisting lung disease.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam. Dry sand. Dry chemical.

Unsuitable extinguishing media: High volume water jet. Do not use direct water stream..

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon oxides. Sulphur oxides.

Unusual Fire and Explosion Hazards: Flash back possible over considerable distance.. Exposure to combustion products may be a hazard to health.. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat.. Vapours may form explosive mixtures with air..

5.3 Advice for firefighters

Fire Fighting Procedures: Use water spray to cool unopened containers.. Evacuate area.. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed.. Do not use a solid water stream as it may scatter and spread fire..
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.. Use personal protective equipment..

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

6.2 Environmental precautions: Do not release the product to the aquatic environment above defined regulatory levels Prevent further leakage or spillage if safe to do so. Prevent spreading over

a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up: Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.

6.4 Reference to other sections:
See sections: 7, 8, 11, 12 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: Do not get on skin or clothing. Do not breathe vapours or spray mist. Do not swallow. Do not get in eyes. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Keep away from metals. Store in original container or corrosive resistant and/or lined container. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied. Use with local exhaust ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

7.2 Conditions for safe storage, including any incompatibilities: Keep in properly labelled containers. Store in original container. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Do not store with the following product types: Strong oxidizing agents. Organic peroxides. Explosives. Gases.
Unsuitable materials for containers**:** None known.

7.3 Specific end use(s): See the technical data sheet on this product for further information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics	ES VLA	VLA-ED Mist	5 mg/m3
	ES VLA	VLA-EC Mist	10 mg/m3

Recommended monitoring procedures

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with the Occupational Exposure Limits and the adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples should be analysed by an accredited laboratory.
Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy); European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents); European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.
National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods.
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods.
Health and Safety Executive (HSE), United Kingdom: Methods for the Determination of Hazardous Substances.
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany.
L'Institut National de Recherche et de Securité, (INRS), France.

Derived No Effect Level
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
Workers

Acute systemic effects		***Acute local effects***		***Long-term systemic effects***		***Long-term local effects***	
Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation
n.a.	n.a.	n.a.	n.a.	170 mg/kg bw/day	12 mg/m3	n.a.	12 mg/m3

Consumers

Acute systemic effects			***Acute local effects***		***Long-term systemic effects***			***Long-term local effects***	
Dermal	Inhalation	Oral	Dermal	Inhalation	Dermal	Inhalation	Oral	Dermal	Inhalation
n.a.	n.a.	n.a.	n.a.	n.a.	85 mg/kg bw/day	3 mg/m3	0,85 mg/kg bw/day	n.a.	3 mg/m3

Predicted No Effect Concentration
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

Compartment	**PNEC**
Fresh water	0,287 mg/l
Marine water	0,0287 mg/l
Intermittent use/release	0,0167 mg/l
Sewage treatment plant	3,43 mg/l
Fresh water sediment	0,287 mg/kg
Soil	35 mg/kg

8.2 Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

Skin protection

Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Neoprene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Styrene/butadiene rubber. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl alcohol ("PVA"). Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

Environmental exposure controls

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	
Physical state	liquid
Color	light brown
Odor	slight
Odor Threshold	No data available
pH	No data available
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	> 35 °C
Flash point	**closed cup** 93 °C
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	Not Applicable
Flammability (liquids)	Not applicable
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	No data available
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	0,843
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	> 100 °C No data available
Decomposition temperature	No data available
Dynamic Viscosity	10 mPa.s
Kinematic Viscosity	< 20,5 mm2/s at 40 °C
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.

9.2 Other information

Molecular weight	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Not classified as a reactivity hazard.

10.2 Chemical stability: Stable under normal conditions.

10.3 Possibility of hazardous reactions: Can react with strong oxidizing agents. Vapours may form explosive mixture with air. Combustible liquid. May be corrosive to metals.

10.4 Conditions to avoid: Heat, flames and sparks.

10.5 Incompatible materials: Avoid contact with oxidizing materials.

10.6 Hazardous decomposition products
No hazardous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

11.1 Information on toxicological effects

Information on likely routes of exposure
Inhalation, Eye contact, Skin contact, Ingestion.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute oral toxicity
Low toxicity if swallowed. Swallowing may result in irritation or burns of the mouth, throat, and gastrointestinal tract.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s):
LD50, Rat, 4 900 mg/kg Estimated.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
For this family of materials: LD50, Rat, male and female, > 5 000 mg/kg OECD 401 or equivalent

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
LD50, Rat, male and female, 1 470 mg/kg

Acute dermal toxicity
Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s):
LD50, > 2 000 mg/kg Estimated.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
For this family of materials: LD50, Rabbit, male and female, > 3 160 mg/kg OECD 402 or equivalent No deaths occurred at this concentration.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
LD50, Rat, male and female, > 2 000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity
Brief exposure (minutes) to easily attainable concentrations may cause adverse effects. Mist may cause irritation of upper respiratory tract (nose and throat) and lungs.

As product: The LC50 has not been determined.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
For this family of materials: LC50, Rat, male and female, 4 Hour, dust/mist, > 5,26 mg/l OECD Test Guideline 403 No deaths occurred at this concentration.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
The LC50 has not been determined.

Skin corrosion/irritation
Based on information for component(s):
Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
Brief contact may cause slight skin irritation with local redness.
Prolonged exposure may cause moderate to severe skin irritation.
May cause drying and flaking of the skin.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation
Based on information for component(s):
May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
May cause slight temporary eye irritation.
Corneal injury is unlikely.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Sensitization
For skin sensitization:
Contains component(s) which did not cause allergic skin sensitization in guinea pigs.

For respiratory sensitization:
No relevant data found.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
For skin sensitization:
For similar material(s):
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)
Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Aspiration Hazard
Aspiration into the respiratory system may occur during ingestion or vomiting. Due to corrosivity, tissue damage or lung injury may occur.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
May be fatal if swallowed and enters airways.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
Aspiration into the respiratory system may occur during ingestion or vomiting. Due to corrosivity, tissue damage or lung injury may occur.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Contains component(s) which have been reported to cause effects on the following organs in animals:
kidney
Kidney effects have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
For this family of materials:
Kidney effects have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
For similar material(s):
In animals, effects have been reported on the following organs:
kidney

Carcinogenicity
No relevant data found.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
No relevant data found.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
No relevant data found.

Teratogenicity
Contains component(s) which caused birth defects in laboratory animals only at doses toxic to the mother.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
For this family of materials: Did not cause birth defects or any other fetal effects in laboratory animals.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
For similar material(s): Has caused birth defects in laboratory animals only at doses toxic to the mother.

Reproductive toxicity
Contains component(s) which did not interfere with reproduction in animal studies.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
For this family of materials: In animal studies, did not interfere with reproduction.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
For similar material(s): In animal studies, did not interfere with reproduction.

Mutagenicity
In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity studies in animals were negative for component(s) tested.

Information for components:

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
For this family of materials: In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.
For similar material(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

12.1 Toxicity

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Acute toxicity to fish
Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).
For this family of materials:
LL50, Scophthalmus maximus (turbot), 96 Hour, > 1 028 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
For this family of materials:
LL50, Marine copepod (acartia tonsa), 48 Hour, > 3 193 mg/l

Acute toxicity to algae/aquatic plants
For this family of materials:
EL50, Skeletonema costatum (marine diatom), 72 Hour, Growth rate, > 10 000 mg/l

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

Acute toxicity to fish
Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).
LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 1,67 mg/l
LC50, Cyprinus carpio (Carp), 96 Hour, 5,6 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
For similar material(s):
EC50, Chironomus riparius (harlequin fly), 48 Hour, 8,6 mg/l

Acute toxicity to algae/aquatic plants
Algae, 72 Hour, Biomass, 14 mg/l, OECD Test Guideline 201 or Equivalent

Chronic toxicity to fish
For analogous substance
NOEC, Fish, 90 d, 0,25 mg/l

Chronic toxicity to aquatic invertebrates
Based on data from similar materials

NOEC, Daphnia magna (Water flea), 21 d, 1,18 mg/l

12.2 Persistence and degradability

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Biodegradability: For this family of materials: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.
10-day Window: Not applicable
Biodegradation: 74 %
Exposure time: 28 d
Method: OECD Test Guideline 306 or Equivalent

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

Biodegradability: Material is expected to be readily biodegradable.

Biodegradation: 94 %
Exposure time: 28 d
Method: OECD Test Guideline 301A

12.3 Bioaccumulative potential

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Bioaccumulation: No relevant data found.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

Bioaccumulation: For similar material(s): Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
Partition coefficient: n-octanol/water(log Pow): 3,2
Bioconcentration factor (BCF): < 100 Pimephales promelas (fathead minnow)

12.4 Mobility in soil

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

No relevant data found.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

No relevant data found.

12.5 Results of PBT and vPvB assessment

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Do not dump into any sewers, on the ground, or into any body of water. This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

SECTION 14: TRANSPORT INFORMATION

Classification for ROAD and Rail transport (ADR/RID):

14.1	**UN number**	UN 3265
14.2	**UN proper shipping name**	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)
14.3	**Transport hazard class(es)**	8
14.4	**Packing group**	II
14.5	**Environmental hazards**	Not considered environmentally hazardous based on available data.
14.6	**Special precautions for user**	Hazard Identification Number: 80

Classification for SEA transport (IMO-IMDG):

14.1	**UN number**	UN 3265
14.2	**UN proper shipping name**	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.)
14.3	**Transport hazard class(es)**	8
14.4	**Packing group**	II
14.5	**Environmental hazards**	Not considered as marine pollutant based on available data.
14.6	**Special precautions for user**	EmS: F-A, S-B
14.7	**Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code**	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

14.1	**UN number**	UN 3265
14.2	**UN proper shipping name**	Corrosive liquid, acidic, organic, n.o.s.(Benzenesulfonic acid,

		4-C10-13-sec-alkyl derivs.)
14.3	**Transport hazard class(es)**	8
14.4	**Packing group**	II
14.5	**Environmental hazards**	Not applicable
14.6	**Special precautions for user**	No data available.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

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

REACh Regulation (EC) No 1907/2006
This product contains only components that have been either registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer´s/user´s responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	Conditions of restriction for the following entries should be considered: Number on list 3 Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics (Number on list 28)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Listed in Regulation: Not applicable

Further information
Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment
No Chemical Safety Assessment has been carried out for this substance/mixture.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008

Met. Corr. - 1 - H290 - Based on product data or assessment
Skin Corr. - 1C - H314 - Calculation method
Eye Dam. - 1 - H318 - Calculation method
Asp. Tox. - 1 - H304 - Calculation method
Aquatic Chronic - 3 - H412 - Calculation method

Revision

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Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ES VLA	Spain. Environmental Limits for exposure to Chemical agents - Table 1: Occupational Exposure Values
VLA-EC	Environmental Short Term Value
VLA-ED	Environmental Daily Limit Value
Acute Tox.	Acute toxicity
Aquatic Chronic	Long-term (chronic) aquatic hazard
Asp. Tox.	Aspiration hazard
Eye Dam.	Serious eye damage
Skin Corr.	Skin corrosion

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -

International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW CHEMICAL IBERICA S.L. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.
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