

Safety Data Sheet

Prepared in accordance with Commission Regulation (EU) 2020/878 amending Annex II of Regulation (EC) No 1907/2006



Stock Number: 227-36903-01
Revision Date: 12-10-2023
This document replaces SDS dated: 19-09-2023
2 Letter ISO country code/language code: UK/EN

Perf check sample (hexane) for FID, CRM

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

1.1 Product identifier: Perf check sample (hexane) for FID, CRM

Stock Number: 227-36903-01

Other means of identification:

Synonyms: None Known

REACH Registration No.: None Known

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

Relevant identified uses: For Laboratory use only

Uses advised against: Uses other than recommended use.

1.3 Details of the Supplier of the Safety Data Sheet:

Supplier:

Shimadzu Europa GmbH
Albert-Hahn-Str. 6-10
47269 Duisburg
Telephone no. +49(0)203-7687-0
Fax no. +49(0)203-711045
gs@shimadzu.eu

Manufacturer:

Restek Corporation
110 Benner Circle
Bellefonte, Pa. 16823
800-356-1688

1.4 Emergency telephone number:

00 1 800-424-9300
(CHEMTREC within the US)

0870-8200418
(CHEMTREC within the UK)

00 1 703-741-5970
(Outside USA)

+1 703-741-5970
(CHEMTREC International)

Poison Centre contact information:

National Poisons Information Service (NPIS)
Email: director.birmingham.unit@npis.org
Website: <http://www.npis.org/>

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) Flammable Liquid Category 2

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No 1272/2008 [CLP]:

Skin Corrosion/Irritation Category 2
Reproductive Toxicity Category 2
Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2
Hazardous to the aquatic environment - Chronic Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

2.2 Label elements:

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

Hazard pictograms:



Signal Word:

Danger

Hazard Statements:

H225 - Highly flammable liquid and vapour
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
H361f - Suspected of damaging fertility.
H373 - May cause damage to organs through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements:

P201 - Obtain special instructions before use.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Supplemental Hazard information (EU):

None Known

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2.3 Other hazards: This substance does not meet the PBT or vPvB criteria of REACH, Annex XIII

SECTION 3: Composition/information on ingredients

3.1 Substances:

Not applicable

3.2 Mixtures:

Chemical Name	%	CAS #	EC No. REACH Registration No.	Classification (EC) No 1272/2008	M Factor	SCL	Acute Toxicity Estimates
n-Hexane (C6)	99.6393	110-54-3	203-777-6 None Known	Aquatic Chronic 2; H411 Asp. Tox. 1; H304 Flam. Liq. 2; H225 Repr. 2; H361f Skin Irrit. 2; H315 STOT RE 2; H373 STOT SE 3; H336	No data available	STOT RE 2; 5%	Not determined
n-Eicosane (C20)	0.07	112-95-8	204-018-1 None Known		No data available	No data available	Not determined
2,6-dimethylaniline	0.0689	87-62-7	201-758-7 None Known	Aquatic Chronic 2; H411 Acute Tox. 4 (Dermal); H312 Acute Tox. 4 (Inh Dust/Mist); H332 Acute Tox. 4 (Oral); H302 Carc. 2; H351 Skin Irrit. 2; H315 STOT SE 3; H335	No data available	No data available	Not determined

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1-octanol	0.0581	111-87-5	203-917-6 None Known		No data available	No data available	Not determined
2-octanone	0.0573	111-13-7	203-837-1 None Known		No data available	No data available	Not determined
n-Tetradecane (C14)	0.0535	629-59-4	211-096-0 None Known		No data available	No data available	Not determined
n-Tridecane (C13)	0.0529	629-50-5	211-093-4 None Known		No data available	No data available	Not determined

For full text of H-statements see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures:

Inhalation:

Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen.

Eye contact:

Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact:

Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion:

Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

Self protection of the first aider:

No data available

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

Causes skin irritation May cause drowsiness or dizziness Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure

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4.3 Indication of any immediate medical attention and special treatment needed: Aspiration during swallowing or vomiting may severely damage the lungs.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Unsuitable extinguishing media: None Known

5.2 Special hazards arising from the substance or mixture:

Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Hazardous Combustion Products:

Carbon dioxide, Carbon monoxide

5.3 Advice for firefighters:

Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Do not enter fire area without proper protection including self-contained toxic breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Non-emergency personnel: Non-emergency personnel should be kept clear of the area

Emergency responders: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

6.2 Environmental precautions:

No data available

6.3 Methods and material for containment and cleaning up:

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Small spills: Refer to information provided for large spills
Large spills: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

6.4 Reference to other sections: Refer to section 13 for disposal information

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

7.2 Conditions for safe storage, including any incompatibilities:

Conditions for safe storage: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

Materials to Avoid/Chemical Incompatibility: Strong oxidizing agents

7.3 Specific end use(s): For Laboratory use only

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

Occupational Exposure limit values:

Chemical Name	United Kingdom - Workplace Exposure Limits (WELs) - TWAs	United Kingdom - Workplace Exposure Limits (WELs) - STELs	United Kingdom - Biological Monitoring Guidance Values
n-Hexane (C6)	20 ppm TWA; 72 mg/m3 TWA	60 ppm STEL (calculated); 216 mg/m3 STEL (calculated)	No data available

DNEL: None Known

PNEC: None Known

8.2 Exposure controls:

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Appropriate engineering controls:	Use only outdoors or in a well-ventilated area.
Individual protection measures, such as personal protective equipment:	
Eye and face protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection:	
Hand protection:	No information available
Other skin protection:	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.
Respirator Type(s):	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.
Thermal Hazards:	Not applicable
Environmental exposure controls:	No data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	No data available
Colour:	No data available
Odour and odour threshold:	Mild
Odour threshold:	No data available
pH:	Not applicable
Melting Point/Freezing Point (°C):	
Melting point (°C):	No data available
Freezing point (°C):	No data available
Initial boiling point and boiling range (°C):	68

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Flash point (°C):	-22
Evaporation Rate (water = 1):	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	
Upper flammable or explosive limit, % in air:	No data available
Lower flammable or explosive limit, % in air:	No data available
Vapour pressure:	No data available
Vapor Density (Air=1):	2.97
Relative density (water = 1):	0.672 g/cm ³ at 15 °C
Solubility(ies):	Negligible; 0-1%
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature (°C):	No data available
Decomposition temperature (°C):	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other information:

Volatile Organic Chemicals:	0
Bulk density:	5.516

SECTION 10: Stability and reactivity

10.1 Reactivity:	Not expected to be reactive
10.2 Chemical stability:	Stable under normal conditions.
10.3 Possibility of hazardous reactions:	None expected under standard conditions of storage
10.4 Conditions to avoid:	No data available
10.5 Incompatible materials:	Strong oxidizing agents
10.6 Hazardous decomposition products:	No data available

SECTION 11: Toxicological information

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11.1 Information on toxicological effects:

Acute toxicity:

Chemical Name	ORAL LD50 (rat)	DERMAL LD50 (rabbit)	INHALATION LC50 (rat)
n-Hexane (C6)	ORAL LD50 Rat 25 g/kg	DERMAL LD50 Rabbit 3000 mg/kg	INHALATION LC50-4H Rat 48000 ppm

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

Skin corrosion/irritation:

pH	Not applicable
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Classification is based on pH and the components listed in Section 3.

Serious eye damage/irritation:

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

Respiratory or skin sensitisation:

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

Germ cell mutagenicity:

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

Carcinogenicity:

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

Reproductive toxicity:

Classification has been based on toxicological information of the components in Section 3.

STOT-single exposure:

Classification has been based on toxicological information of the components in Section 3.

STOT-repeated exposure:

Classification has been based on toxicological information of the components in Section 3.

Aspiration hazard:

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

SECTION 12: Ecological information

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12.1 Toxicity: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

Ecological Toxicity Data:

Chemical Name	CAS #	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
No data available				

12.2 Persistence and degradability: No data
12.3 Bioaccumulative potential: No data available
12.4 Mobility in soil: No data available
12.5 Results of PBT and vPvB assessment: No data available
12.6 Other adverse effects: None Known
12.7 Additional information: No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Disposal methods: Spent or discarded material is a hazardous waste. Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste codes / waste designations according to LoW: No data available

SECTION 14: Transport information

International carriage of dangerous goods by road (ADR), rail or inland waterways:

14.1 UN number: UN1208
14.2 UN proper shipping name: Hexanes
14.3 Transport hazard class(es): 3
14.4 Packing group: II

International carriage of dangerous goods by air (IATA):

14.1 UN number: UN1208

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14.2 UN proper shipping name: Hexanes
14.3 Transport hazard class(es): 3
14.4 Packing group: II
14.5 Environmental hazards: Yes
14.6 Special precautions for user: No data available
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: No data available

SECTION 15: Regulatory information

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

Chemical Name	EINECS	SVHC
n-Hexane (C6)	Yes	No
2,6-dimethylaniline	Yes	No

15.2 Chemical Safety Assessment No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Revision Date: 12-10-2023

Indication of changes: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

Abbreviations and acronyms:
CAS = Chemical Abstract Service
DNEL= Derivative No Effect Level
EC= European Community
EINECS = European Inventory of Existing Chemical Substances
MSHA = Mine Safety Health Administration
NIOSH = National Institute of Occupational Safety & Health
OEL = Occupational Exposure Limit
PBT= Persistent, Bioaccumulative, Toxic
PNEC= Predicted No Effect Concentration

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SCOEL= Scientific Committee on Occupational Exposure Limits
TLV = Threshold Limit Value
TWA= Time Weighted Average
vPvB= Very Persistent, Very Bioaccumulative
Wt.% = Weight Percent

Key literature references and sources for data:

No data available

Hazard phrase(s) referenced in section 3

H351 - Suspected of causing cancer.
H225 - Highly flammable liquid and vapour
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H361f - Suspected of damaging fertility.
H373 - May cause damage to organs through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements:

Prevention:

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.

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Response:

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - If on skin: Wash with plenty of water.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P312 - Call a POISON CENTER/doctor if you feel unwell.
P321 - Specific treatment (see Sections 4 to 8 on this SDS and any additional information on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use an appropriate extinguisher (see section 5) to extinguish.
P391 - Collect spillage.

Storage:

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.

Disposal:

P501 - Dispose of contents/container to a suitable disposal site in accordance with local/national/international regulations.

Disclaimer of Liability:

IMPORTANT: WHILE THE DESCRIPTIONS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU PERFORM AN ASSESSMENT TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED, DATA OR INFORMATION SET FORTH. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, OR DATA PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, THE DESCRIPTIONS, DATA AND INFORMATION FURNISHED HEREUNDER ARE GIVEN GRATIS. NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DATA AND INFORMATION GIVEN ARE ASSUMED. ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.