

COF-TpPa-1

Covalent Organic Framework — TpPa-1

A crystalline, high-surface-area covalent organic framework for research and laboratory use.

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CAS-No. 1414350-37-0

Version 1.2 / EN

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1 Identification

Product identifiers

Product Name ACS Material Covalent Organic Framework-TpPa-1 (COF-TpPa-1)
 Brand ACS Material LLC
 CAS-No. 1414350-37-0

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

Identified uses Laboratory chemicals, Manufacture of substances

Details of the supplier of the safety data sheet

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Emergency telephone number

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2 Hazard(s) identification

Classification of the substance or mixture

GHS CLASSIFICATION

Specific target organ toxicity – single exposure (Category 3), Respiratory system, H335.

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

GHS label elements, including precautionary statements



SIGNAL WORD

WARNING

GH507 — Exclamation mark

HAZARD STATEMENT

Code	Hazard statement
H335	May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

Code	Precautionary statement
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Code	Precautionary statement
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor / physician if you feel unwell.
P337 + P313	If eye irritation persists, get medical advice / attention.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents / container to an approved waste disposal plant.

Other hazards

This substance / mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3 Composition / information on ingredients

Substances

Substance name	ACS Material Covalent Organic Framework-TpPa-1 (COF-TpPa-1)
Synonyms	COF-TpPa-1
CAS-No.	1414350-37-0

HAZARDOUS COMPONENTS

Component	Concentration	CAS-No.
COF-TpPa-1	≤ 100%	1414350-37-0

For the full text of the phrases mentioned in this section, see Section 16.

Hazardous impurities: None known.

4 First-aid measures

Description of first-aid measures

General advice. Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled. Remove to fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact. Immediately flush eyes with plenty of water for at least 15 minutes and consult a physician.

If swallowed. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see Section 2.2) and / or in Section 11.

Indication of any immediate medical attention and special treatment needed

No data available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Hazards arising from the substance or mixture

No data available.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Conditions of flammability

No data available.

Further information

No data available.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see Section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see Section 13.

7 Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see Section 2.2.

Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. If necessary, use nitrogen protection and low-temperature preservation.

Specific end use(s)

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

8 Exposure controls / personal protection

Control parameters

Components with workplace control parameters. Contains no substances with occupational exposure limit values.

Exposure controls

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Appropriate engineering controls. Use mechanical exhaust or a laboratory fume hood to avoid exposure.

Personal protective equipment

Eye / face protection. Safety glasses with side-shields conforming to EN 166. Use eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection. Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Body protection. Handle with gloves. Gloves must be inspected prior to use. Use proper glove-removal technique (without touching the outer surface) to avoid skin contact. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands.

Respiratory protection. For nuisance exposures use a type P95 (US) or type P1 (EU EN 143) particle respirator. For higher-level protection use type OV / AG / P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure. Do not let product enter drains.

9 Physical and chemical properties

Information on basic physical and chemical properties

Property	Value
Appearance	Powder
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper / lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	Insoluble
Partition coefficient: n-octanol / water	No data available

Property	Value
Auto-ignition temperature	No data available
Decomposition temperature	> 320 °C
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other safety information

No data available.

10 Stability and reactivity

Reactivity. No data available.

Chemical stability. Stable under recommended storage conditions.

Possibility of hazardous reactions. No data available.

Conditions to avoid. Strong acids, strong alkali.

Incompatible materials. Strong acids, strong alkali.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions – carbon oxides. Other decomposition products – no data available. In the event of fire, see Section 5.

11 Toxicological information

Information on toxicological effects

Acute toxicity. Oral LD50: no data available. Inhalation LC50: no data available. Dermal LD50: no data available.

Skin corrosion / irritation. No data available.

Serious eye damage / eye irritation. No data available.

Respiratory or skin sensitisation. No data available.

Germ cell mutagenicity. No data available.

Carcinogenicity

IARC: Group 3 – Not classifiable as to its carcinogenicity to humans (COF-TpPa-1).

IARC: Group 2B – Possibly carcinogenic to humans (COF-TpPa-1).

Reproductive toxicity. No data available.

Specific target organ toxicity – single exposure. Inhalation – may cause respiratory irritation.

Specific target organ toxicity – repeated exposure. No data available.

Aspiration hazard. No data available.

Potential health effects

Route	Effect
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.

Route	Effect
Ingestion	May be fatal if swallowed.

Signs and symptoms of exposure. No data available.

Additional information. RTECS: not available. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12 Ecological information

Toxicity. No data available.

Persistence and degradability. No data available.

Bioaccumulative potential. No data available.

Mobility in soil. No data available (COF-TpPa-1).

Results of PBT and vPvB assessment. No data available.

Other adverse effects. No data available.

13 Disposal considerations

Waste treatment methods

Product. Offer surplus and non-recyclable material to a licensed disposal company. Contact a licensed professional waste-disposal service to dispose of this material.

Contaminated packaging. Dispose of as unused product.

14 Transport information

	ADR / RID	IMDG	IATA
UN number	-	-	-
UN proper shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
Transport hazard class(es)	-	-	-
Packaging group	-	-	-
Environmental hazards	no	Marine pollutant: no	no

Special precautions for user. No data available.

15 Regulatory information

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

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 (REACH).

For use in the United States, handle in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and applicable GHS requirements.

16 Other information

Full text of H-statements referred to under Sections 2 and 3

H335 – May cause respiratory irritation.

HMIS RATING

Health	Flammability	Physical Hazard
1	0	0

NFPA RATING

Health	Fire	Reactivity
1	0	0

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