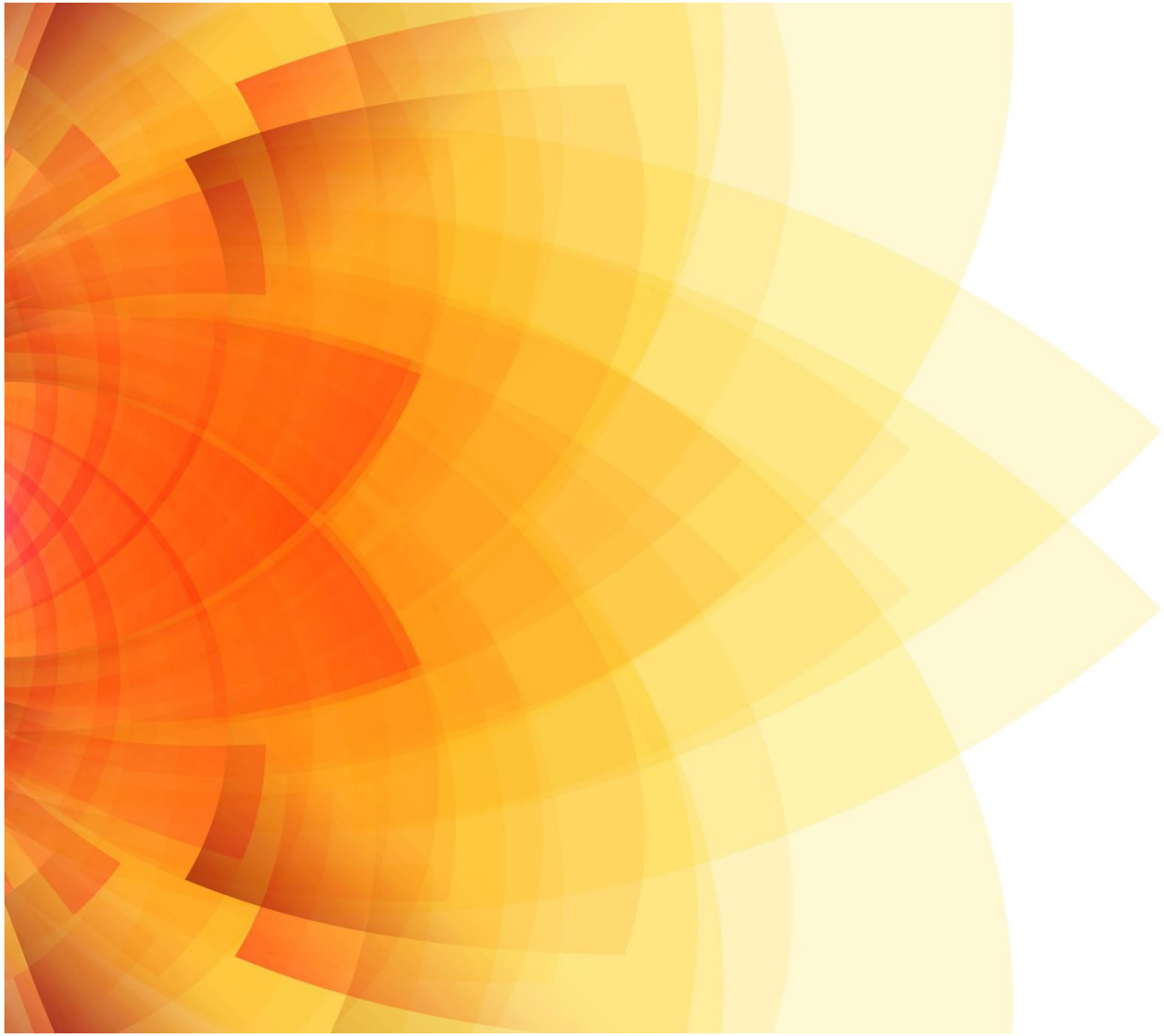


CAMEO Chemicals

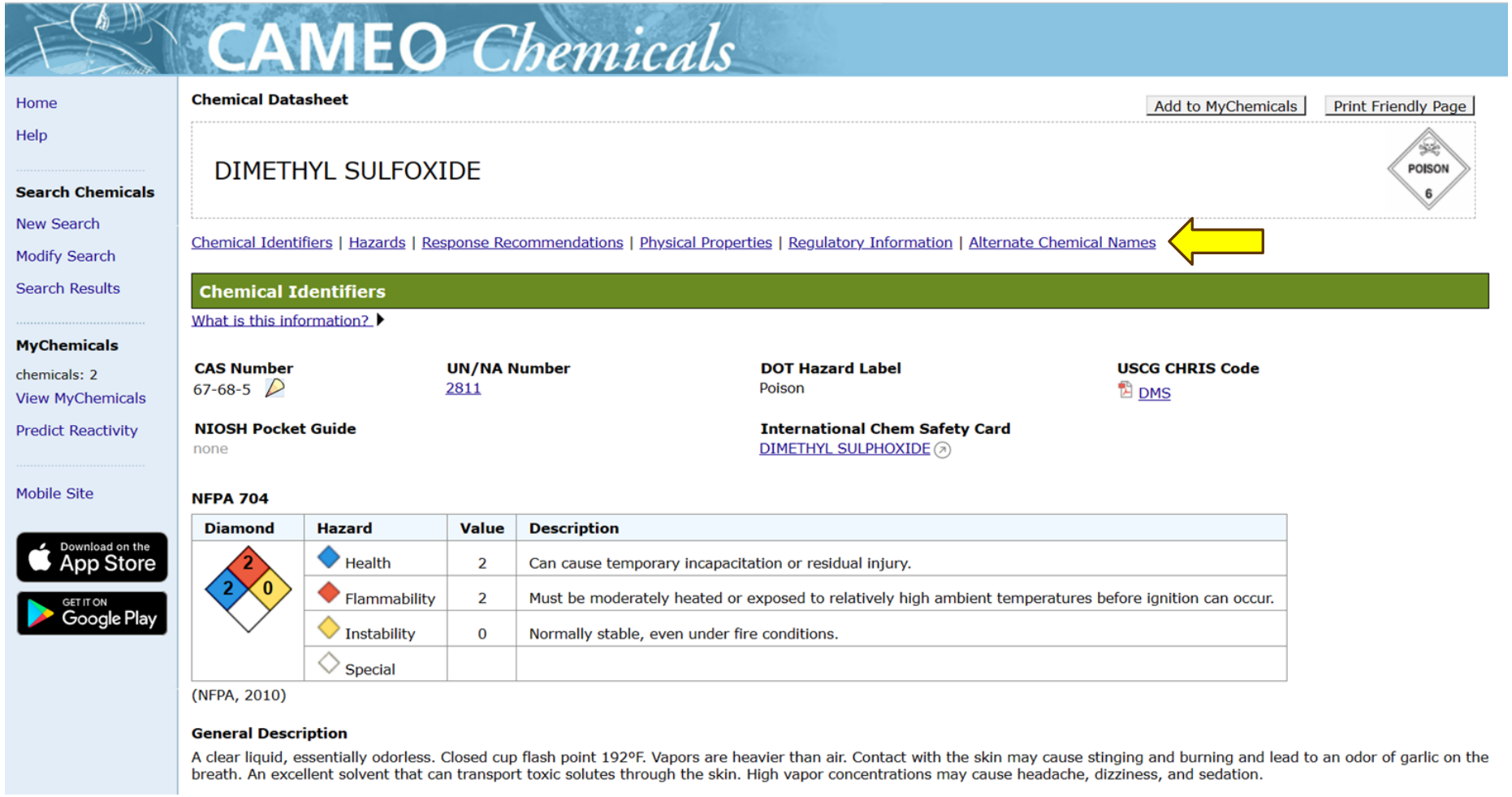
(Computer-Aided Management of Emergency Operations)

FIND RESPONSE INFORMATION FOR 9,000 HAZARDOUS MATERIALS

SEARCH BY NAME, CAS REGISTRY NUMBER, PREDICT REACTIVITY USING MYCHEMICALS

AVAILABLE IN MULTIPLE FORMATS: MOBILE, WEBSITE, DESKTOP SOFTWARE

HTTPS://CAMEOCHEMICALS.NOAA.GOV/



CAMEO Chemicals record for DMSO

Hazards

What is this information?

Reactivity Alerts

none

Air & Water Reactions

Denser than water and miscible in water.

Fire Hazard

Special Hazards of Combustion Products: Sulfur dioxide, formaldehyde, and methyl mercaptan can form (USCG, 1999)

Health Hazard

Slight eye irritation. (USCG, 1999)

Reactivity Profile

DIMETHYL SULFOXIDE decomposes violently on contact with many acyl halides and related compounds such as acetyl chloride, benzenesulfonyl chloride, benzoyl chloride, cyanuric chloride, phosphorus trichloride, phosphorus oxychloride, and thionyl chloride [Chem. Eng. News 35(9):87 (1957)].

Belongs to the Following Reactive Group(s)

- Sulfonates, Phosphonates, and Thiophosphonates, Organic

Potentially Incompatible Absorbents

No information available.

CAMEO Chemicals record for DMSO - Hazards

Response Recommendations

What is this information?

Isolation and Evacuation

Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:

IMMEDIATE PRECAUTIONARY MEASURE: Isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (7

SPILL: Increase the immediate precautionary measure distance, in the downwind direction, as necessary.

FIRE: If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 met

Firefighting

Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:

SMALL FIRE: Dry chemical, CO2 or water spray.

LARGE FIRE: Dry chemical, CO2, alcohol-resistant foam or water spray. If it can be done safely, move undamaged containers away from the area arour

FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Do r
water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away f

Non-Fire Response

Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area. Do not touch damaged containers or spilled material unless
risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and t

Protective Clothing

Butyl rubber gloves, safety goggles. Respiratory filter if airborne sprays or drops are present. (USCG, 1999)

DuPont Tychem® Suit Fabrics

Fabric legend, testing details, and a caution from DuPont

Normalized Breakthrough Times (in Minutes)

Chemical	CAS Number	State	QS	QC	SL	C3	TF	TP	RC	TK	RF
Dimethyl sulfoxide	67-68-5	Liquid				>480	>480	>480	>480	>480	>480

> indicates greater than.

Special Warning from DuPont: Tychem® and Tyvek® fabrics should not be used around heat, flames, sparks or in potentially flammable or explosive er
More Info...

(DuPont, 2022)

CAMEO Chemicals record for DMSO – Response Recommendations

First Aid

EYES: First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

SKIN: IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.

INHALATION: IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Protective Clothing.

INGESTION: DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital. (NTP, 1992)

Physical Properties

What is this information?

Chemical Formula: C2H6OS

Flash Point: 203°F (NTP, 1992)

Lower Explosive Limit (LEL): 2.6 % (NTP, 1992)

Upper Explosive Limit (UEL): 63 % (NTP, 1992)

Autoignition Temperature: 419°F (USCG, 1999)

Melting Point: 65.3°F (NTP, 1992)

Vapor Pressure: 0.42 mmHg at 68°F (NTP, 1992)

Vapor Density (Relative to Air): 2.71 (NTP, 1992)

Specific Gravity: 1.101 at 68°F (USCG, 1999)

CAMEO Chemicals record for DMSO – Response Recommendations continued and Physical Properties

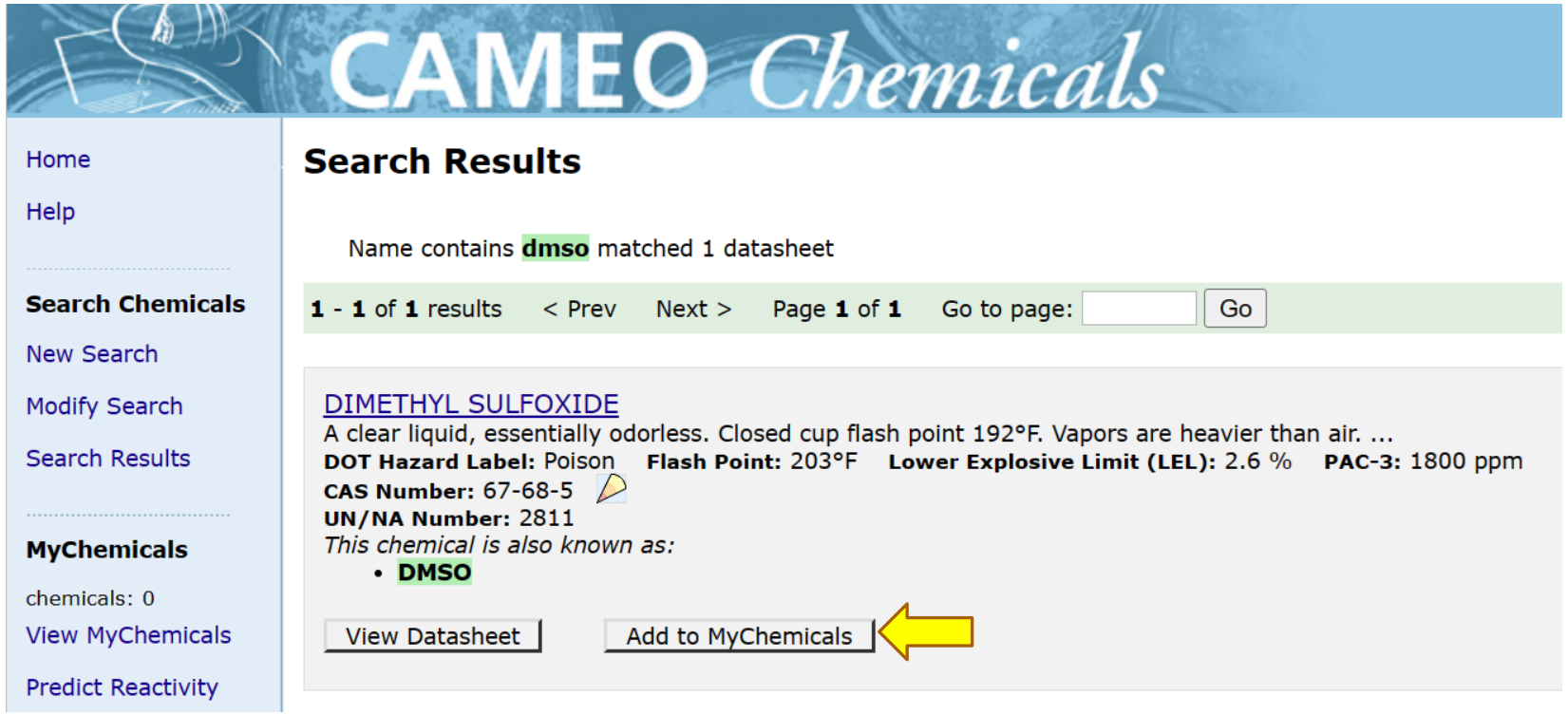
CAMEO Chemicals – Predict Reactivity

Step-by-step instructions:

1. Search substances one at a time.

From Search Results (or from Datasheet), press **Add to My Chemicals**.

Please note: **Advanced search** page lets you search fragments of chemical names, properties, etc.



CAMEO Chemicals – Predict Reactivity

Step-by-step instructions continued:

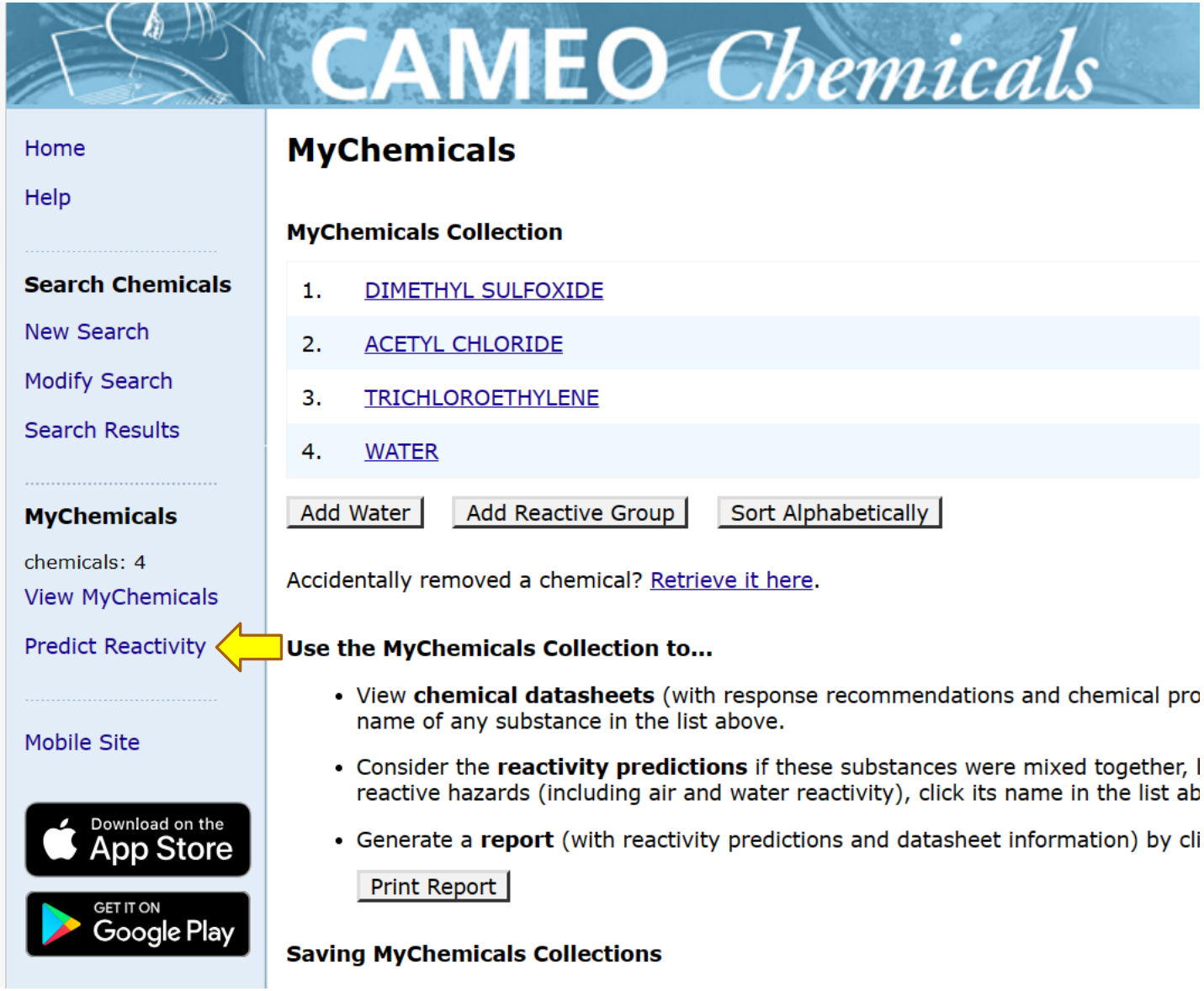
2. After adding substances to **MyChemicals,** click on **Predict Reactivity** on the left side.

Notes:

Reactivity Predictions are based on a PAIR or TWO substances.

Recommend adding no more than 20 compounds to **MyChemicals** to keep size of prediction table from becoming unwieldy.

See HELP for more details.



Compatibility Chart

This chart provides an overview of the reactivity predictions. For more details, click on a cell or scroll down the page.

How do I read this chart?

	DIMETHYL SULFOXIDE		
ACETYL CHLORIDE	**Caution** Generates heat Intense or explosive reaction	ACETYL CHLORIDE	
TRICHLOROETHYLENE	**Compatible**	**Compatible**	TRICHLOROETHYLENE
WATER	**Compatible**	**Incompatible** Corrosive Generates gas Generates heat Intense or explosive reaction Toxic	**Caution** Corrosive Generates gas

CAMEO Chemicals – Predict Reactivity – Compatibility Chart