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by Chemical Abstracts Service.

STN Database Summary Sheet

The **MSDS-OHS** File (Material Safety Data Sheets - OHS) contains full text of Material Safety Data Sheets, Summary Sheets, and Label Data for more than 59,000 substances, including pure substances and mixtures, 92-96% of which are the most heavily used chemicals in industry. The database originated with Occupational Health Services, Inc. (OHS).

Over 14,000 sources are reviewed annually to provide comprehensive, up-to-date material safety data sheets. The records include occupational, environmental, and regulatory data, as well as names, CAS Registry Numbers®, and regulatory list numbers.

Subject Coverage

- Health and safety data

Sources

OHS Authoring, Reference & Hazard Communication™ Material Safety Data Sheets produced from reviews of more than 14,000 U.S. and international sources including:

- Abstracts
- Books
- Conference Proceedings
- Government Reports
- Journals
- Magazines
- Research Reports
- Newsletters
- Serials

File Data

- Current information
- More than 60,321 substances (8/08)
- Reloaded quarterly
- Current-awareness searches (SDIs) are not available

User Aids

- Online help messages (HELP DIRECTORY lists all help messages available)
- STNGUIDE

Database Producer/Supplier

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MSDS-OHS**Search and Display Field codes**

There are no fields that allow left or right truncation in this file.

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index (contains single words from the full MSDS document)	None (or /BI)	S 4759-48-2 S 13-CIS-RETINOIC ACID S SPILL?(L)WATER S L1 AND FIRST AID	Full MSDS document
CAS Registry Number CAS Registry Number Count (1) Chemical Class Identifier (Chemical Family) Chemical Name (contains chemical names, trade names, molecular formula, regulatory list numbers, and OHS numbers) Language (code and text) MSDS Creation Date (1) OHS Number (Document Number) Regulatory List Numbers Revision Date (1)	/RN /RN.CTN /CI (or /FN) /CN (or /TN, or /MF) /LA /DATE /OHSN (or /DN) /RLN /RDAT	S 4759-48-2/RN S FORMALDEHYDE/CN AND 1/RN.CNT S ISOTOPES, DERIVATIVES/CI S ACCUTANE/CN S RO 4-3780/CN S OHS00048/CN S C20H28O2/MF S EN/LA S OCT 14 1988/DATE S DATE>20010300 S OHS00048/OHSN S 200-001-8/RLN S L1 AND RDAT>DEC 2002 S 20030620/RDAT	RN Not displayed CI CN, TN LA DATE OHSN RLN RDAT

(1) Numeric search field that may be searched with numeric operators or ranges.

DISPLAY and PRINT Formats

Any combination of formats may be used to DISPLAY or PRINT answers. Multiple codes must be separated by spaces or commas, e.g., D RN CN. The fields are displayed or printed in the order requested.

Hit-term highlighting is available in all fields except AN. Highlighting must be ON in order to use the HIT, KWIC, and OCC formats.

Format	Content	Examples
AN (1) CI (FN) CN (TN) (2) DATE LA OHSN (DN) RDAT RLN RN SECTIONn (1)	Accession Number Chemical Class Identifier (Chemical Family) Chemical and Trade Names (CN and TN) MSDS Creation Date Language OHS Number (Document Number) Revision Date Regulatory List Numbers CAS Registry Number Section n (Sections 1 through 16)	D AN D L1 CI D CN 1-5 D DATE 1,3 L2 D LA D OHSN D RDAT 1-3 D RLN D RN CN D SECTION15
ALL IDE LABEL SUMM TRIAL (TRI, SAM) (2)	Full MSDS document OHSN, RN, RLN, CN, TN, CI, DATE, RDAT (IDE is the default) Label data MSDS summary CN, TN	D ALL D L2 7 NOH IDE D D L1 LABEL 1-3 D L1 SUMM 2 D TRIAL TOTAL
HIT KWIC OCC (2)	All fields or MSDS sections containing hit terms Hit terms plus 20 words on either side (KeyWord-In-Context) List of display fields containing hit terms and number of times they occur	D AN HIT D 3 L5 KWIC D 1-10 OCC

(1) Custom display only.

(2) No online display fee for this format.

MSDS-OHS

SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers or an L-number containing terms from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
CAS Registry Number	RN	Y	Y
Chemical Class Identifier (Chemical Family)	CI	Y (2)	Y
	FN	Y	Y
Chemical Names and CAS Registry Number	CHEM	Y (3)	N
Chemical Name and Trade Names	CN	Y (default)	Y
	TN	Y (4)	Y
	NAME	Y (3)	N
Language	LA	Y	Y
MSDS Creation Date	DATE	Y	Y
Occurrence Count of Hit Terms	OCC	N	Y
OHS Number	OHSN	Y	Y
	DN	Y (5)	Y
Regulatory List Numbers	RLN	Y	Y
Revision Date	RDAT	Y	Y

(1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT RN.

(2) Appends /FN to the terms created by SELECT.

(3) Appends /BI to the terms created by SELECT.

(4) Appends /CN to the terms created by SELECT.

(5) Appends /OHSN to the terms created by SELECT.

Full-Text Browsing

User Request	Example	System Response
DISPLAY BROWSE	=> DISPLAY BROWSE ENTER (L1) OR L#: ENTER (DIS), ANSWER NUMBERS, OR END:	NOVICE version
D BRO Answer number(s) Answer number(s) and format Format only *Format Forward n fields Backward n fields Search forward for a character string Search backward for a character string End DISPLAY BROWSE	=> D BRO L1 : :1-3 :4 LABEL :LABEL :*KWIC :F3 :B1 :S CARCINOGEN :S- FIRST AID :END =>	EXPERT version display answers 1, 2, and 3 in default format display answer 4 in LABEL format display the LABEL information for the last answer displayed change default to KWIC; no answer displayed move forward 3 fields move backward 1 field search forward within record for 'carcinogen' search backward within record for 'first aid' exit DISPLAY BROWSE and return to => prompt

Sample Record

DISPLAY ALL

OHSN OHS00045 MSDS-OHS

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MDL INFORMATION SYSTEMS, INC. EMERGENCY TELEPHONE NUMBER:
1281 Murfreesboro Road, Suite 300 1-800-424-9300 (NORTH AMERICA)
Nashville, TN 37217-2423 1-703-527-3887 (INTERNATIONAL)
1-615-366-2000

SUBSTANCE: ACACIA

TRADE NAMES/SYNONYMS:
ACACIA DEALBATA GUM; ACACIA GUM; ARABIC GUM; ACACIA SENEGAL; ACACIA SYRUP;
AUSTRALIAN GUM; GUM OVALINE; GUM SENEGAL; INDIAN GUM; NCI-C50748; STARSOL NO.
1; WATTLE GUM; OHS00045; RTECS CE5945000

CHEMICAL FAMILY: glycoside

CREATION DATE: Jan 31 1985
REVISION DATE: Mar 22 2001

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: ACACIA
CAS NUMBER: 9000-01-5
EC NUMBER (EINECS): 232-519-5
PERCENTAGE: 100

COMPONENT: WATER
CAS NUMBER: 7732-18-5
EC NUMBER (EINECS): 231-791-2
PERCENTAGE: 13-15

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=1 REACTIVITY=0

EMERGENCY OVERVIEW:
COLOR: white to yellow
PHYSICAL FORM: granules, flakes, powder
ODOR: odorless
MAJOR HEALTH HAZARDS: eye irritation, allergic reactions
PHYSICAL HAZARDS: Dust/air mixtures may ignite or explode.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation, allergic reactions, tearing, wheezing,
asthma
LONG TERM EXPOSURE: no information on significant adverse effects

MSDS-OHS**DISPLAY ALL (cont'd)**

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation, allergic reactions, rash, tearing, wheezing, asthma

LONG TERM EXPOSURE: same as effects reported in short term exposure

EYE CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: same as effects reported in short term exposure

INGESTION:

SHORT TERM EXPOSURE: allergic reactions, nausea, vomiting

LONG TERM EXPOSURE: no information on significant adverse effects

CARCINOGEN STATUS:

OSHA: No

NTP: No

IARC: No

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Slight fire hazard. Dust/air mixtures may ignite or explode.

EXTINGUISHING MEDIA: regular dry chemical, carbon dioxide, water, regular foam

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

DISPLAY ALL (cont'd)-----
SECTION 7 HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

ACACIA:

No occupational exposure limits established.

VENTILATION: Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: solid

COLOR: white to yellow

PHYSICAL FORM: granules, flakes, powder

ODOR: odorless

BOILING POINT: Not applicable

MELTING POINT: Not available

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

SPECIFIC GRAVITY (water=1): 1.4-1.5

WATER SOLUBILITY: soluble

PH: acidic in solution

VOLATILITY: Not applicable

ODOR THRESHOLD: Not available

EVAPORATION RATE: Not applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SOLVENT SOLUBILITY:

Soluble: glycerol, propylene glycols

Insoluble: alcohol

MSDS-OHS**DISPLAY ALL (cont'd)**-----
SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition.
Avoid contact with incompatible materials.

INCOMPATIBILITIES: oxidizing materials

ACACIA:

OXIDIZERS (STRONG): Fire and explosion hazard.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: oxides of carbon

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

ACACIA:

IRRITATION DATA:

36 mg/5 hour(s) eyes-rabbit severe

TOXICITY DATA:

>16 gm/kg oral-rat LD50; >16 gm/kg oral-mouse LD50; 8 gm/kg oral-rabbit
LD50; >18 gm/kg oral-hamster LD50; 1260 gm/kg/13 week(s) continuous oral-rat
TDLo

LOCAL EFFECTS:

Irritant: eye

ACUTE TOXICITY LEVEL:

Slightly Toxic: ingestion

TARGET ORGANS: immune system (sensitizer)

MUTAGENIC DATA:

dominant lethal test - rat oral 54600 mg/kg 10 week(s)-continuous

REPRODUCTIVE EFFECTS DATA:

350 gm/kg oral-rat TDLo 10 week(s) male

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

ACACIA: May cause irritation. Sensitization reactions may occur with watery eyes and nose, cough, wheezing, rhinitis, asthma, hives, eczema, and angioedema.

CHRONIC EXPOSURE:

ACACIA: Repeated or prolonged exposure may lead to pulmonary sensitization. Occupational exposure has caused chronic bronchitis and pulmonary congestion. Well defined radiological findings were also reported.

SKIN CONTACT:

ACUTE EXPOSURE:

ACACIA: May cause irritation and contact dermatitis. Sensitization reactions may occur with watery eyes and nose, cough, wheezing, asthma, eczema, hives, urticaria or skin lesions in previously exposed persons.

DISPLAY ALL (cont'd)

CHRONIC EXPOSURE:

ACACIA: Repeated or prolonged contact may cause dermatitis and sensitization.

EYE CONTACT:

ACUTE EXPOSURE:

ACACIA: May cause irritation. Animal studies indicate severe irritation occurring.

CHRONIC EXPOSURE:

ACACIA: Repeated or prolonged contact may cause conjunctivitis.

INGESTION:

ACUTE EXPOSURE:

ACACIA: May cause nausea or vomiting, and sensitization reactions including hives, eczema and angioedema in previously exposed persons.

CHRONIC EXPOSURE:

ACACIA: Repeated ingestion may result in sensitization. Reproductive effects have been reported in animals.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: No classification assigned.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.

LAND TRANSPORT ADR/RID: No classification assigned.

AIR TRANSPORT IATA/ICAO: No classification assigned.

MARITIME TRANSPORT IMDG: No classification assigned.

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):

Not regulated.

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DISPLAY ALL (cont'd)

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):
Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: Yes
CHRONIC: Yes
FIRE: No
REACTIVE: No
SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:
California Proposition 65: Not regulated.

CANADIAN REGULATIONS:
WHMIS CLASSIFICATION: Not determined.

EUROPEAN REGULATIONS:
EC CLASSIFICATION (CALCULATED): Not determined.

GERMAN REGULATIONS:
WATER HAZARD CLASS (WGK):
STATE OF CLASSIFICATION: Annex 3
CLASSIFICATION UNDER HAZARD TO WATER: 0

NATIONAL INVENTORY STATUS:
U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

SECTION 16 OTHER INFORMATION

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